

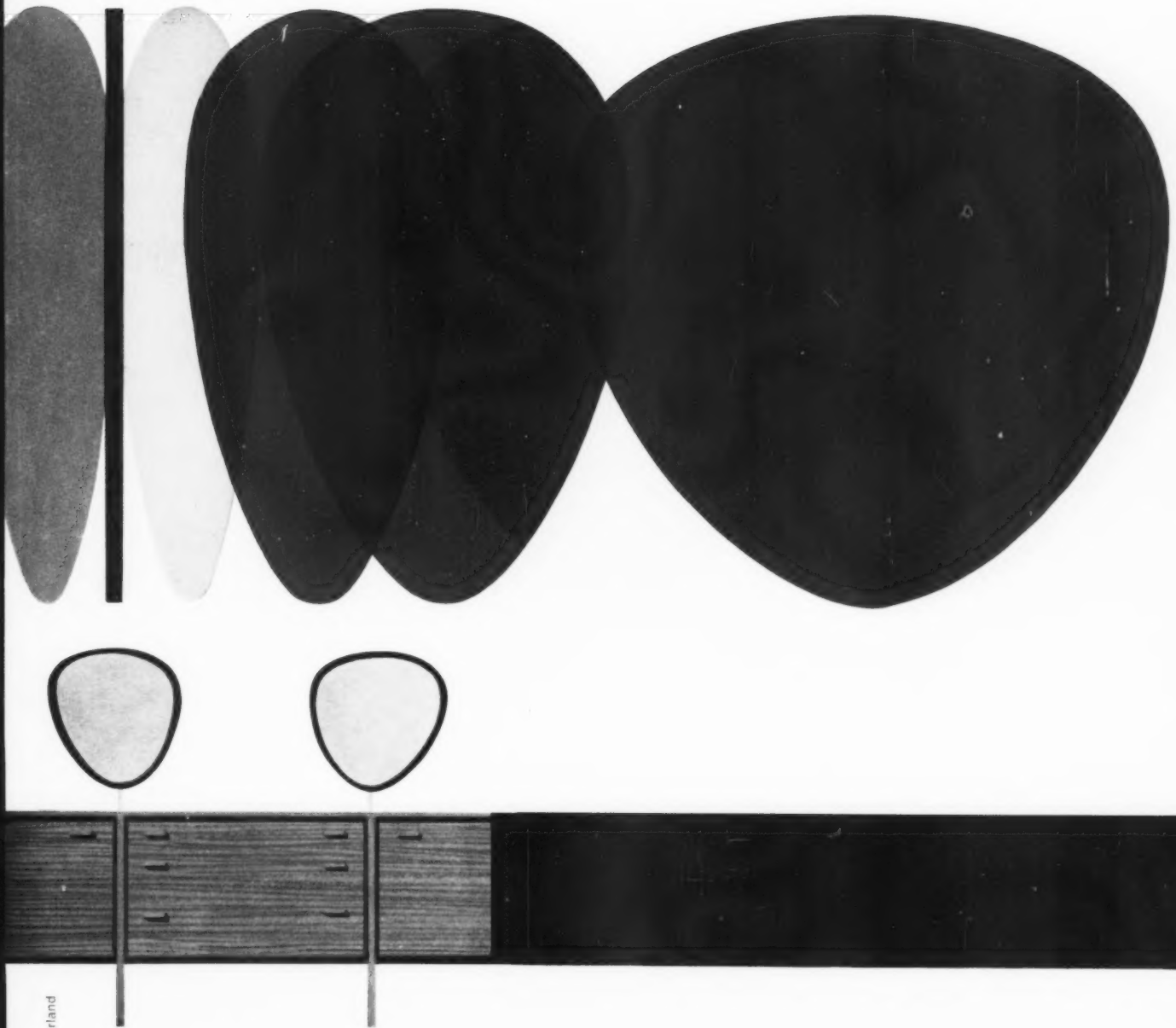
Design

Council of Industrial Design

140

August 1960

Price 3s



ANCESTORS OF AN INDUSTRY

THE HON. ROBERT BOYLE was the man who formulated the theory on which all chemical reasoning is based: that an element is the simplest form of matter and cannot be resolved into other substances. Before Boyle first stated his theory, in 1661, scientists had clung to the Aristotelian hypothesis that there were four elements, fire, air, earth and water, and that all matter consisted of these in different proportions. With Boyle's appreciation of the nature of an element, the whole trend of scientific thought was changed. After he had gone through the common operations of chemistry and had begun to make serious reflections on them, Boyle thought it a pity that instruments that might prove so serviceable to the advancement of natural philosophy should not be more studiously and skilfully used to so good a purpose. Chemistry should not be a mere handmaid to medicine or a slave to the transmutation of base metals to gold, but a systematic investigation of nature with the object of the advancement of knowledge.

Before Boyle's day, chemistry was the happy hunting ground of the quack physician and the alchemist; his work raised it to the status of a dignified branch of natural science.



The same curiosity
that inspired the
ancestors of their
industry leads
I.C.I.'s scientists
and technologists
towards the discovery
and development
of new materials
and improved processes





Drawing by Eric Thomas



MORTIMER STREET

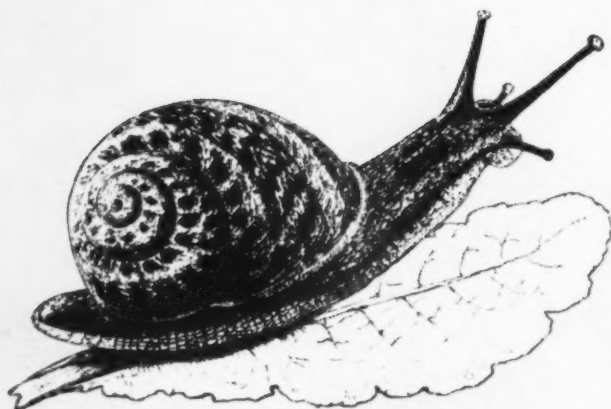
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MADE TO MEASURE

The snail, most thoughtfully, goes to some pains to reconcile his own needs with those of the conchologist

- As home and protection, his shell must be tough, portable, and very much made to measure. At the same time, it must have just those qualities which—in due course—will delight the collector

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you, the manufacturer, get the particular kind of steel your product needs

- Steel, in fact, made to measure—to your exact requirements.



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Old English proverb: "All fluids flow".

Fact. Mild ale, milk of human kindness, meths, myths,
moths, maths, mulligatawny . . . all flow, all anyhow.
Beer downhill, damp uphill, ink everywhere. Sea sideways in lumps.

At home, no problem. Turn hot tap, get cold water.
But in British beehive of industry, buzz buzz clickety click,
flow-control fundamental. Can't pump chemicals Anglo-Saxon drainpipes . . .
can't pour phenolphthalein chipped teapot . . .
can't put new wine old buckets . . . Laughing stock.

So. Modern industrial practice *thinwall piping systems* in (e.g.) chemical
(e.g.) petro-chemical installations. How neat, light, precise, how thin wall,
smooth bore, non corrosive! Everyone pleased. Fluids flow fast, no knock plug.
All enchanted. But how turn corner? All ask.

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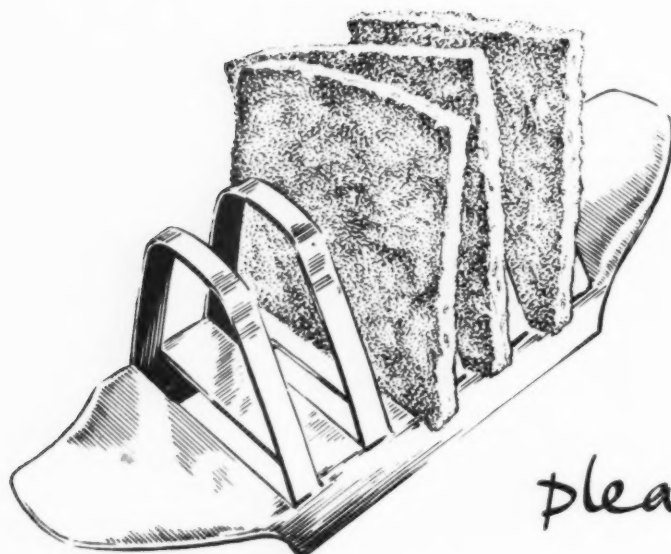
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*Registered trade names of
Henry Wiggin & Company Ltd.

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pass the toast -



please

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my wife.*

*nice toast rack too,
well designed,
gave it to her as a present . . .*

Stainless steel

*Good stuff - stays bright without polish
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find it where you least expect it
even my toast rack,*

*wonder if its the same
suppose so - but slightly more special.*

*Needs a specialist to make special steel . . .
even for toast racks.*

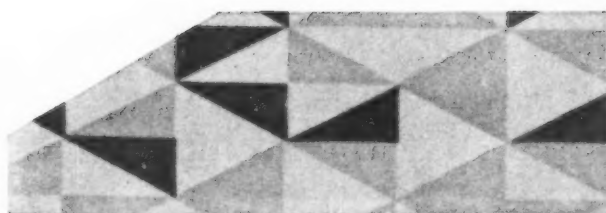
*Must have the right steel for the job,
ask Firth-Vickers*

no good keeping a dog and barking yourself



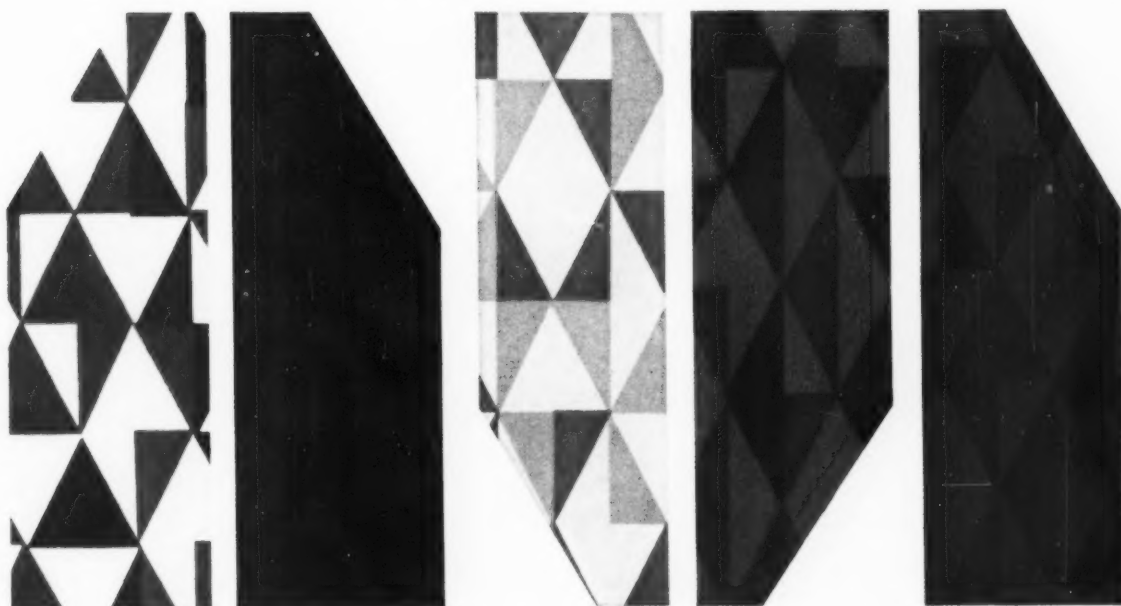
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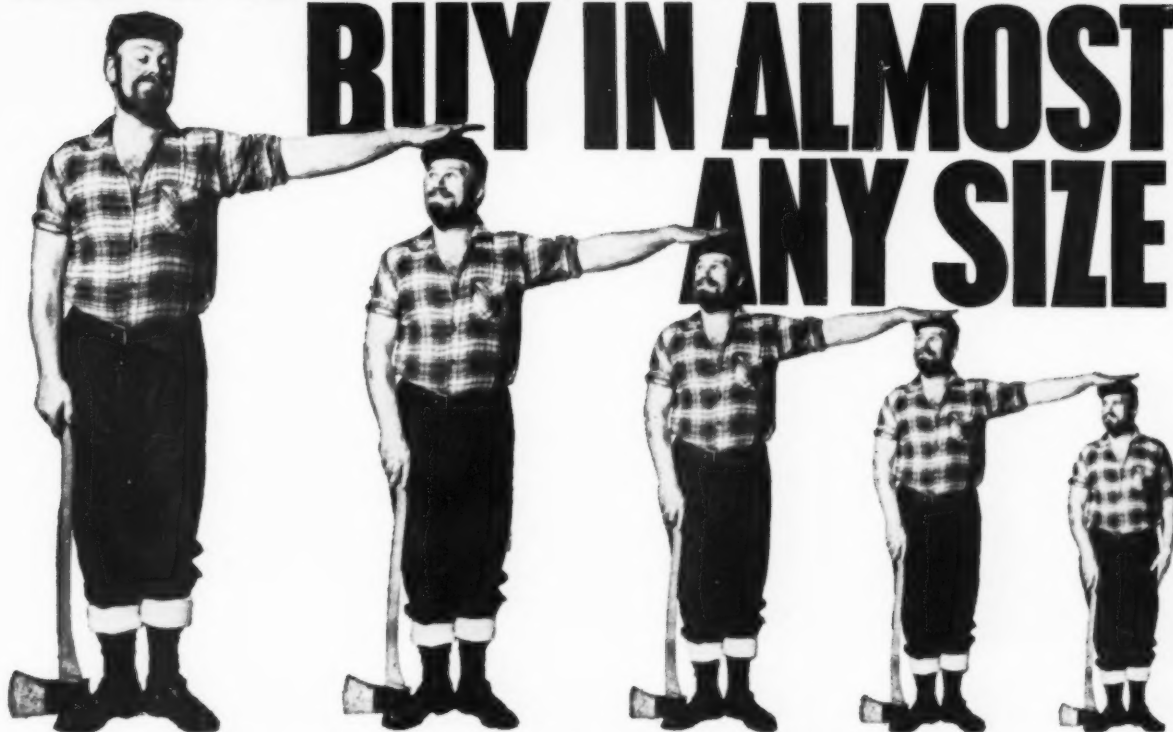
one of the
1960
design
centre
awards



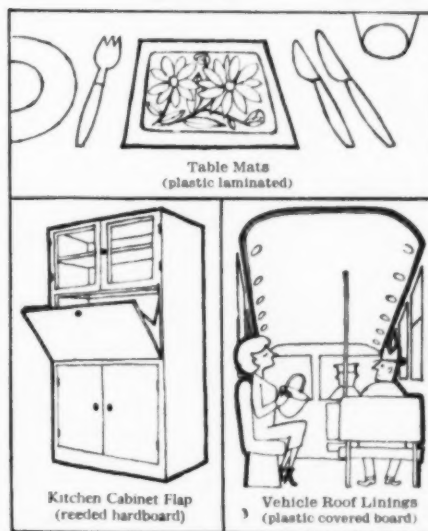
Product design
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Mrs Morgan might be right...

The Glass Container-acceptance Testing Service will find out

The frustrating thing about developing a new pack is that when you have used all the marketing experience, all the know-how, there still remains an element of chance. You never can be sure about a pack until it has been submitted to the criticism of Britain's 37 million packaging experts—the Mrs. Morgans, the consumers. You may have guessed right or wrong. Not far wrong maybe—just wrong enough to make all the difference. The maddening thing is that if you ever do discover what the Mrs. Morgans didn't like, it probably turns out to have been some footling thing that shouldn't logically have made any difference. That's the trick—consumers don't have to be logical—they don't even *have* to be consumers if they don't like your pack.

It is to remove some of this guesswork from pack development, that Britain's Glass Manufacturers have set up the Container-acceptance Testing Service. This provides Packers with facilities to test consumer reaction to new packs *before* they go into mass production. Designs can be tested in any or all of the following four progressive stages. **1 Design Preference Testing.** Any new design can be tested on a consumer panel of 400

households. Their preferences will be analysed and presented to the Packer as a report and recommendation.

2 Container in Use Testing. The new container and its product can be tested in actual use in the home. The panel's experience of the new pack will be recorded, analysed and furnished as a report.

3 Shelf Testing. The sales appeal of a new pack can be tested under real store conditions, on the shelves of self-service or other stores. The speed and volume of off-take will be audited and analysed by type of store and locality. The new pack may be tested either alone or against any alternative.

4 Area Test Marketing. It was felt that facilities to convert shelf testing into a test marketing operation would be welcomed by some Packers. To make this possible an expertly staffed marketing service has been established which will plan, organise and, if desired, execute test marketing campaigns in their entirety for Packers launching new glass packed products.

Free Service. Because the glass manufacturers believe that these services should be used as widely as possible, all the facilities under

headings 1, 2 and 3 are offered *free* as a service to the packing industry. The only cost to the Packer under these headings will be in the supply of goods, containers and such items as labels and transport. In the case of Area Test Marketing schemes however, a nominal charge will be made for planning the operation.

Security. Where any of these tests are carried out on new products, the whole operation can be executed with absolute security. Packers can have complete anonymity by employing one of the several brand names that have been registered especially for this purpose.

If you would care to have further details of this service, please do not hesitate to ask, irrespective of whether your interest is immediate or not. Your Glass Container Manufacturer will be happy to discuss your problem and to help you in any way. Details of this scheme have been published as a booklet, copies of which are available on request from your Glass Manufacturer or from the Federation.



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NEW DESIGN 'A'

'Don't reckon much of that, do you Polly?'



Mrs Morgan might be right...

The Glass Container-acceptance Testing Service will find out

The frustrating thing about developing a new pack is that when you have used all the marketing experience, all the know-how, there still remains an element of chance. You never can be sure about a pack until it has been submitted to the criticism of Britain's 37 million packaging experts—the Mrs. Morgans, the consumers. You may have guessed right or wrong. Not far wrong, maybe—just wrong enough to make all the difference. The maddening thing is that if you ever do discover what the Mrs. Morgans didn't like, it probably turns out to have been some fooling thing that shouldn't logically have made any difference. That's the trick—consumers don't have to be logical—they don't even *have* to be consumers if they don't like your pack.

It is not surprising, then, that the Glass Container-acceptance Testing Service, the only independent packaging design and development service in Britain, has been established. The service is now open for business, and is ready to accept orders for new design tests. The service is now open for business, and is ready to accept orders for new design tests. The service is now open for business, and is ready to accept orders for new design tests.

1. **Design Testing.** The design of a new pack is submitted to the Glass Container-acceptance Testing Service for a full and complete evaluation. The service is now open for business, and is ready to accept orders for new design tests.

2. **Container in Use Testing.** The design of a new pack is submitted to the Glass Container-acceptance Testing Service for a full and complete evaluation. The service is now open for business, and is ready to accept orders for new design tests.

3. **Shelf Testing.** The design of a new pack is submitted to the Glass Container-acceptance Testing Service for a full and complete evaluation. The service is now open for business, and is ready to accept orders for new design tests.

4. **Area Test Marketing.** It was not long ago that the concept of a new pack was a matter of marketing operation would be a matter of marketing operation. The service is now open for business, and is ready to accept orders for new design tests.

Free Service. The service is now open for business, and is ready to accept orders for new design tests. The service is now open for business, and is ready to accept orders for new design tests.

meanwhile, the service is now open for business, and is ready to accept orders for new design tests. The service is now open for business, and is ready to accept orders for new design tests. The service is now open for business, and is ready to accept orders for new design tests.

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SEE HOW GOOD THINGS ARE IN GLASS



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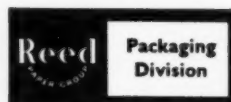
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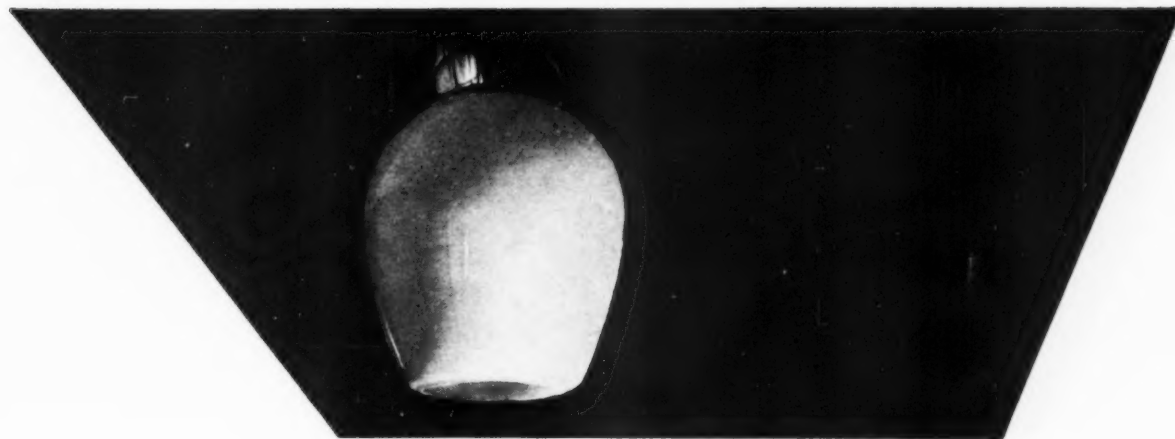
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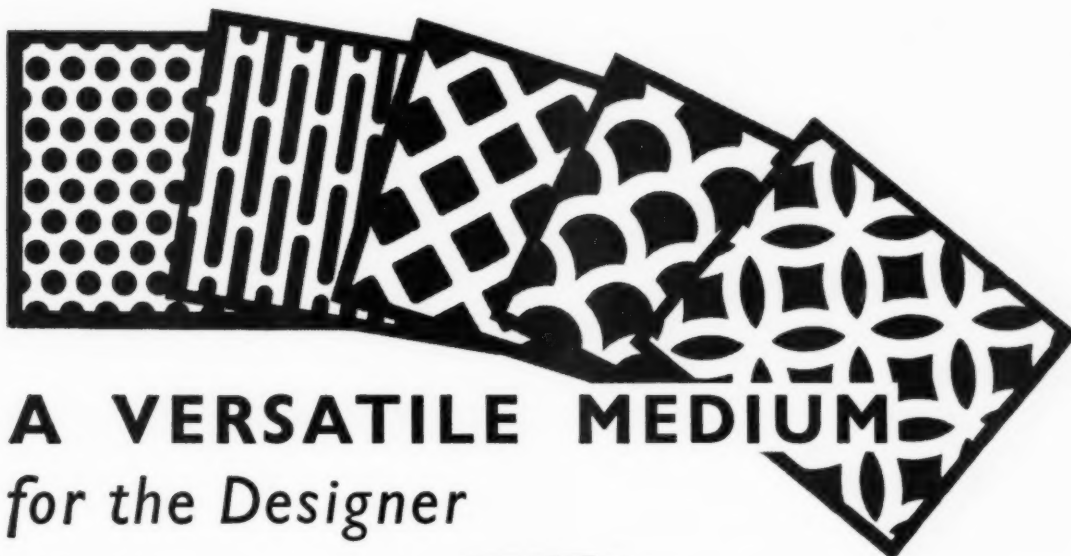
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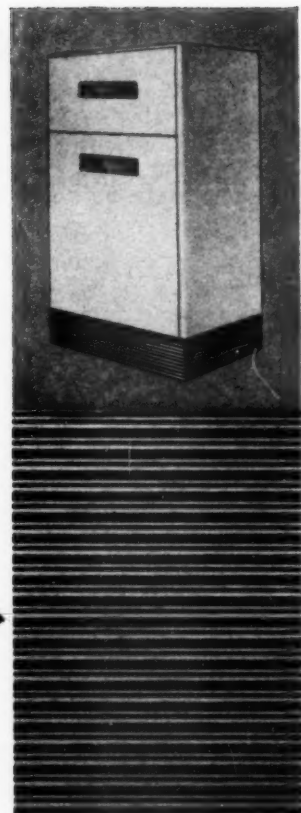
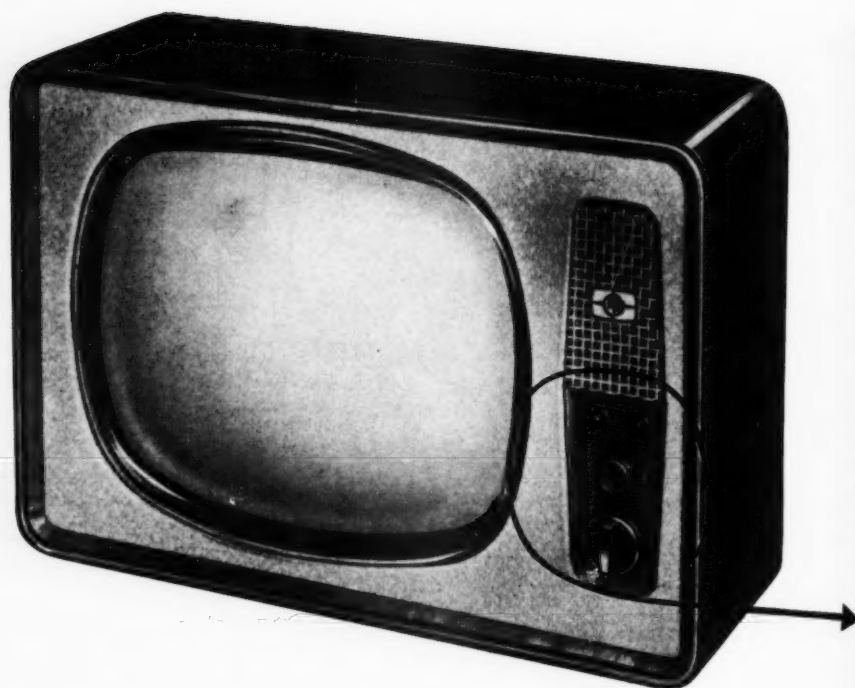
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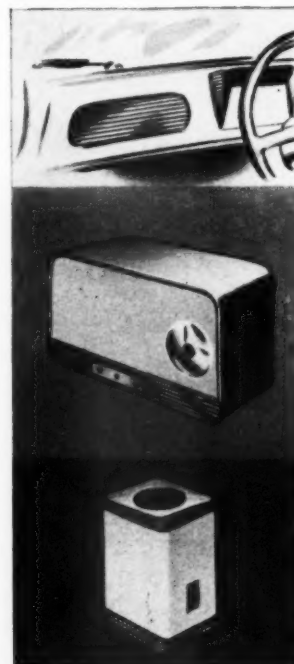
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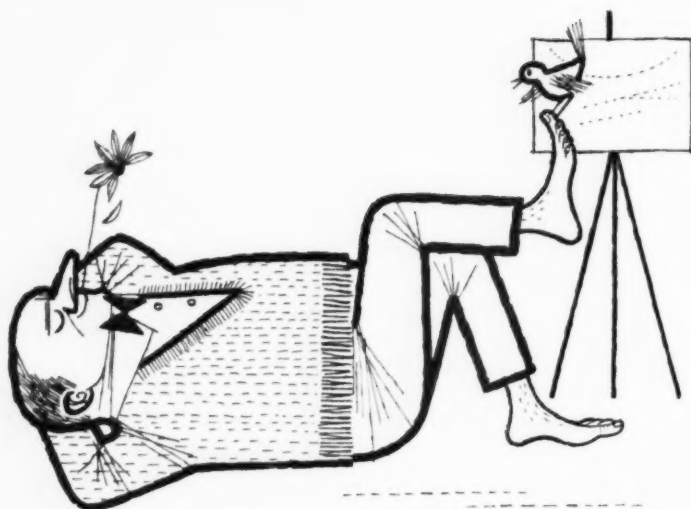
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H. A. Rothholz

Safety first

Most of us are rather more aware than we used to be of the hazards of modern life. Not that there is any evidence to suggest that life is more dangerous today than it was say 30 years ago, far from it. But we are, perhaps, less sanguine about the deaths and injuries that occur when something goes wrong with the environment we have created for ourselves. When the threat of total destruction is always present in the backs of our minds, when we realise that man has the knowledge to build machines that will replace the need for his muscles and electronic devices that will replace the need for his brain, and when we understand, almost for the first time, how insignificant we are when seen against the vast regions that lie beyond the earth, then life itself and all its attributes become infinitely more miraculous and desirable.

Perhaps this is the reason why we read with such fascinated horror of the aircraft which explodes five miles above the ocean, or the car which veers off the road into a tree, and sense the split second of terror before oblivion. But these are the more dramatic symbols of our twentieth century fears; when we see them translated into statistics we are inclined to accept them more easily, as we accept the latest figures for milk production or the number of people who last year went to Bournemouth on holiday.

Sooner or later, however, the figures mean something; and the knowledge that the isolated horror story is being reproduced perhaps 100 times a month has its effect. Recent stories about 'exploding' oil heaters have woken us up to the fact that our cosy parlours do not provide the safe retreats from the world that we had imagined. How many of us have searched the shops for a fire-guard that would fit our fire, or have wondered if the missing screw from the pram has ended up in Willie's inside?

That there is indeed a new consciousness of these problems is clear from the emergence of the consumer organisations and from the establishment of the Board of Trade's Malony Committee on Consumer Protection. This committee has now issued an interim report on the safety of consumer goods and recommends early legislation to prohibit the sale of goods which do not conform to certain minimum standards. While this is a most valuable move, it does not yet tackle what is likely to be the thorniest of questions – how safe is safe? And while legislation in itself may be necessary, it does not absolve designers, manufacturers and distributors from their responsibility to aim at the highest standard of all, even if this may seem to cut across immediate commercial requirements, as the safety harness article in this issue suggests. In the long run the manufacturer who invests in safety is likely to reap the richest rewards.

J.E.B.



DESIGNS BY CHARLES EAMES FOR HERMAN MILLER

New materials and techniques are here applied to a venerable problem: sitting in comfort. Seat shells are in immensely strong polyester resin, reinforced with glass fibre, or in elegant black-enamelled wire. Upholstered clip-on covers available. Underframes are in wire, tubular steel or, in the case of the pivot chair, tubular steel on a cast aluminium base. Seats and frames are strongly, resiliently joined and you may select from many exclusive Hille upholstery fabrics. Hille also make Herman Miller's interlocking stacking chairs, moulded plywood chairs, and the stupendous (*sic*) Lounge Chair and Ottoman. Visit our showrooms, 39/40 Albemarle St., London W.1, Hyde Park 9576 or 24 Albert Street, Birmingham 4, Midland 7378, or write for brochure.

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Travel in which style?

For most of us travel is an urgent topic at this time of year. Our own individual anticipation (or nostalgic memories) of Florence, Nice or Southend-on-Sea add up to a mass movement of people on an enormous scale. Vast though this holiday traffic has become, it is matched by an equal rise in the numbers of people whose business makes intercontinental travel a commonplace occurrence. And as the numbers grow, the scientists, inventors and designers think up new ways of getting people to their destinations more quickly, more comfortably, and very occasionally, more cheaply.

The surprising thing about all this is that newer forms of transport – the jet, the Hovercraft, the VTOL airliner – seldom seem to replace the older systems, but merely add to them. And while the railways may blame the roads for increasing overdrafts, and shipping blames the air for declining profits, both seem to be busy building new trains and ships and modernizing their equipment. The new Pullman train, described in this issue, provides an injection of new ideas into British Railways exactly at the moment when it is most needed. In the world of shipping, the *Canberra* and *Oriana* (DESIGN 133/67 and 138/69) may offer less dramatic changes simply because the P & O and Orient Line companies have maintained in the past a consistently progressive attitude to design.

The announcement, however, of plans for a new 75,000 ton ship, possibly nuclear powered, to replace the 20-year old *Queens* provides a valuable opportunity to revitalize this link with the New World, now rapidly becoming dominated by the giant American jets. A traditional grandeur in interior design has been the peculiar mark of Cunard's ships, but it should have no place in this latest vessel if she is to earn the applause of her trans-Atlantic passengers. The P & O and Orient Line companies have clearly shown the way in commissioning Britain's best designers to plan the interiors of their ships. It is to be hoped that Cunard will follow their lead and find the designers who can give such a ship the interiors which are fitted to ocean travel not only in the 'sixties but in the 'seventies and 'eighties as well.

Hotel boom

It is all very well, of course, to make travel quicker and easier – but it is quite another matter to find somewhere pleasant to stay when you get to the end of your journey.

Two and a half years ago DESIGN's special issue on hotels could report only a few hotels of any merit in design built in this country since the war. Hoteliers were then extremely gloomy about future prospects and considered that no new hotel was likely to provide a reasonable return on capital invested. Since then however, new

hotels seem to have been popping up all over the place.

But new buildings are not the only signs of fresh life in the hotel business, for conversion schemes have also been going ahead at an ever-increasing rate. That such investment in modernization can indeed be profitable is proved by one of the biggest hotel owners in Britain – the British Transport Commission – which last year pushed its hotel trading profits to over £1,000,000. This is no mean achievement in view of the often ponderous, inconvenient Victorian buildings which it has inherited. Yet by methodically re-designing restaurants, bars and bedrooms, new customers are being attracted and space that was once 'dead' is now enjoying a lively trade.

The emphasis in all this work is on forthright but unpretentious modern design which seems at last to have ousted the nondescript period interiors which have been the bane of British hotels for so long. Examples of new and recently converted hotels will be shown in a future issue.

Diplomatic furnishing

That modern interior design is gaining such a firm foothold in places which have been steeped in tradition is encouraging for those who have argued the common sense of this approach for many years.

One sphere where tradition has held sway for a very long time is the Government foreign service. Embassies and official residences abroad are almost as much ambassadors of Britain's progress in the modern world as the Government servants who occupy them. Britain has been slower than some other countries to recognise this, but now, as new countries gain their independence, the chance is being taken to put up modern diplomatic buildings, and furnish them imaginatively with some of Britain's leading designs. This of course is only one of the many responsibilities the Ministry of Works has in furnishing, equipping and maintaining the many thousands of Government buildings, from offices to laboratories and museums to post offices. To show just how this vast problem is being tackled, DESIGN is publishing a special issue on the subject next month.

No colour for the small screen

It is a great pity that the committee which has been enquiring into the future of British television should have so firmly rejected the early introduction of a colour television system in favour of a black and white system of higher definition. There appears to be no technical reason why a colour cannot be run in conjunction with black and white and some manufacturers are certainly ready to provide the equipment needed.

The demonstration by EMI at the recent *Instruments, Electronics and Automation Exhibition* showed quite clearly how colour could improve the quality of television presentation, for there seemed to be little if any crudity or distortion of colour. Yet it would be wrong to think of colour as a panacea for all TV evils. There are plenty of problems that still have to be solved by producers and designers, and colour is likely to add to the difficulties. But since the difficulties must be faced eventually then it seems preferable that they should be tackled sooner rather than later.

WHAT IS GOOD DESIGN

PART 2

L. BRUCE ARCHER

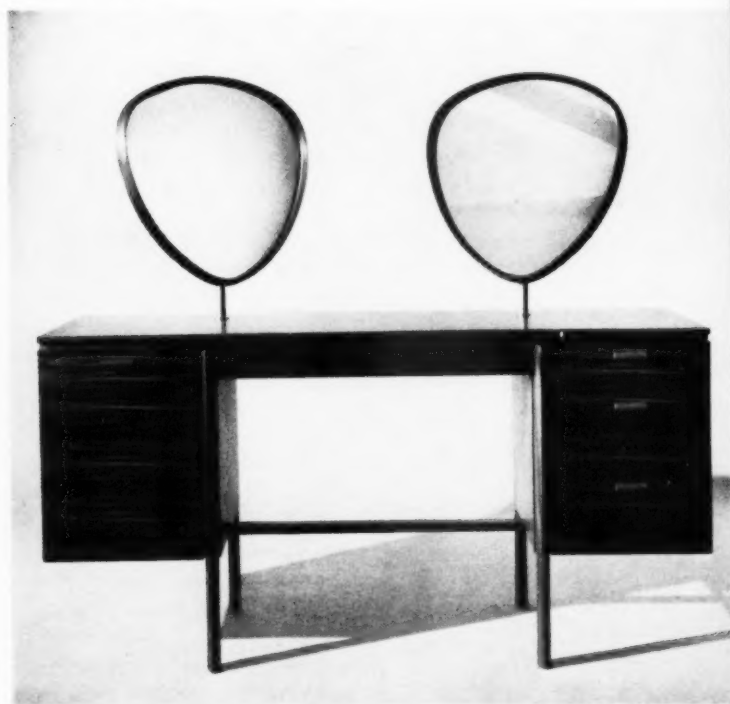
In this second of two articles, the author attempts to define good design by example. The first article examined the general principles of the subject and suggested a form of systematic analysis by which designs might be assessed. As soon as the answer to any of the questions taken in order is 'No' then the product cannot be considered further. The application of these principles is briefly demonstrated here by subjecting three products of very different types to simultaneous analysis. A number of users and experts examined the products and it is on their comments that the author bases his assessments.

1 Does it work?

– with a degree of efficiency which is appropriate to the type of product and the circumstances of its use?

Three important considerations emerged during the examination of the nature of good design conducted in the previous article (DESIGN 137/28–33). Firstly, it was made clear that in this context 'design' means 'industrial design' and therefore concerns manufactured products having both useful purpose and visual significance. Secondly, it was demonstrated that if a product is to be considered good industrial design it must appeal at the point of sale and it must be profitable at the point of manufacture, as well as being functionally and aesthetically acceptable at the point of

Caribbean dressing table. £37 10s.
DESIGNER *Nigel Walters* MAKER *F. Wrighton & Sons Ltd.*



The prime function of a dressing table is to serve as a workbench for the business of making up, arranging the hair, and trying the effect of ear rings, jewellery, etc. For this purpose the essential requirements are a work top, mirrors, and storage space for bottles and jars. A secondary function of the dressing table is to store lingerie, and other clothing. The importance of this secondary function in the eyes of an individual user varies according to the availability of drawer space in other pieces of furniture in the room. The Wrighton dressing table is offered in two versions, a knee-hole type, ABOVE, and a chest type (page 28). Both designs prove to be well calculated to serve their functions – proper provision for both cosmetics and jewellery in the divided shallow centre drawer, and for bottles – even tall ones – in the cupboard.

Yes.

use. Thirdly, it was argued that an industrial design may be judged *either* by the standards of its own class, *or* by the best standards of its day, but *always* by current – not historic – standards.

The systematic method of analysis put forward was in the form of a series of questions calculated to eliminate from consideration those products which fail to measure up to basic requirements, and to classify good industrial design in three grades – good in its class, high style, and truly great design.

Here the object is to test this approach by attempting to put it

into practice. In the following pages three products of very different types are examined in the prescribed manner to see how they, and the system, emerge from the acid test of a design analysis. At the time of writing all three products were very new – in fact, two of them had but recently been approved for production – so that they had not been commented upon elsewhere. By the time this article appears in print, however, a general opinion may have formed, and the validity or otherwise of these assessments will be plain for the reader to judge.

Fruit Cookies biscuit pack. 1s 1d.

DESIGNER Alan Ball of Design Research Unit for Parkinson's Biscuits Ltd.



A food package must fulfil a number of functions. It has to lend itself to quick handling in being made up from the flat, filled and closed. It must be readily bulked into cartons and vanloads, and it must protect the contents in transit and in storage. It has to be capable of being arranged in selling displays in the retail store. It must attract the attention of the prospective consumer and must be recognised by him both for class of contents and for brand. A package is required to carry selling messages and, sometimes, statutory information such as ingredients, weights, etc. It must tempt the consumer to pick it up and carry it away. Once home, the package must be readily stored in the larder and it must protect the contents there. It must be easy to open and to empty. It must encourage replacement when empty, and its image must be remembered. The Parkinson's biscuit pack does all these things.

Yes.

Sprite motor mower. £32 17s 3d.

MAKER Ransomes Sims & Jefferies Ltd.



In most users' eyes a lawnmower is valued for its cosmetic effects rather than anything else. The ordinary roller mower is intended for use on well laid lawns in reasonably good condition rather than upon rough grass. Evenness and closeness of cut are the main criteria of functional efficiency. The 14-inch Ransomes *Sprite* cuts extremely evenly. The grass box is of good capacity and collects well.

Yes.

continued

2 Is it safe?

— in the hands of a clumsy or reckless user, or in the event of a physical defect occurring?

If the answers to questions 1 and 2 is 'Yes' then the design reaches the bare minimum requirements, and may be considered further.

3 Will it last?

— as long as is expected of this sort of product?

4 Is it fitted to the user?

— so that it can be comfortable and effectively used, cleaned and maintained by a user of ordinary physique and skill?

If the answer to all the foregoing questions is 'Yes' then the design meets the required minimum standards of utility and can be considered further.

(The first four questions are the principal interests of the various consumer protection organisations, and may be the subject of British Standard and other specifications.)

Dressing table

The possible dangers to which a consumer might be exposed in the use of a piece of furniture of this type are: pinching the fingers between drawers when opening or shutting them; receiving a knock on the head or pinching a finger when the mirror adjustment fails to work properly; and the possibility of the whole piece collapsing or tipping up if someone stands on it, perhaps to take down the curtains. In this design there is no hidden drawer pinch, the mirrors, which are free to rotate, are set at a fixed angle to the horizontal, and the structure is particularly rigid and is stable when stood upon, unless the user's weight is applied at the extreme end.

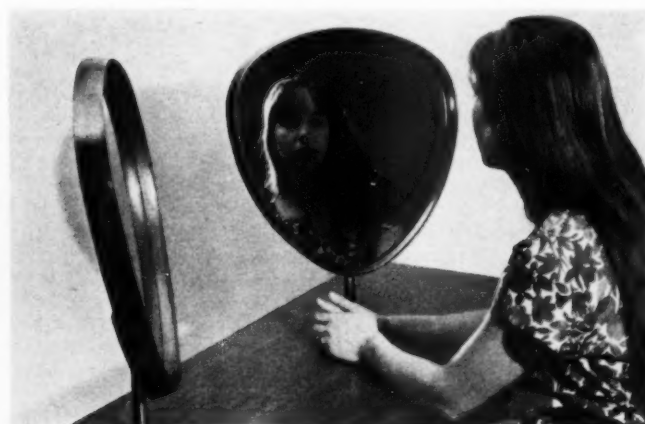
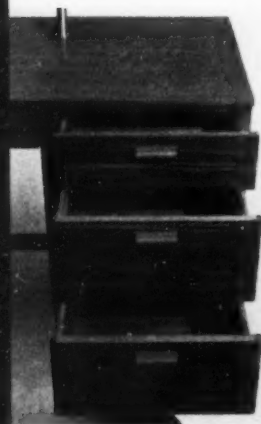
Yes.

A combination of conventional methods of construction together with the latest recommendations on carcass rigidity published by the Furniture Development Council have produced a design which should prove to be more than usually durable. The exposed surfaces are of particle board with Honduras mahogany and quartered Bombay rosewood veneers. The drawer sides, legs and rails are in solid mahogany. The mirror is of British glass, silvered and lead painted, with painted edges — unusual in lower priced furniture. But the surface finishes are less orthodox. These consist of a polyurethane base coat under a cellulose matt lacquer. This gives the effect of a Scandinavian oiled finish, but is more durable and protective than either oiled finish or nitrocellulose.

Yes.

All the proportions of the kneehole version, including the angle and positions of the mirrors, were found to accord closely with the modern anthropometric recommendations. The working top is 27 inches high, and the kneehole 23½ inches. The chest type was less comfortable to sit at, of course, but otherwise it was extremely well arranged and the long shallow top drawer, when pulled out, compensated in part for the absence of the kneehole. The twin mirror arrangement (pioneered by Nigel Walters in more expensive suites some years ago) has been criticised on the grounds that a full faced view cannot be obtained in direct full faced light, and that the user cannot get very close to the glass. This criticism is not completely valid, however, for the simple reason that the great majority of women over 40 and a fair proportion of those under 40 suffer from a degree of shortsightedness, which compels them to use a hand mirror for rouging and lipstick. Nevertheless, a single mirror version of the kneehole dressing table is available, and the chest type also can be supplied with either one or two mirrors, BELOW CENTRE.

Yes.



Biscuit pack

The question of safety is a marginal one in its application to package design. The protection of its contents against mishandling and against the ingress or egress of moisture, aroma, dust, etc, is part of the basic function of a pack. One genuine safety matter is often overlooked, however. A package should guard against the possibility of its contents being confused with something else – say food with fertilizer, or toothpaste with medicaments – where a mix up might lead to the danger of poisoning, etc. The biscuit pack is free from this sort of danger.

Yes.

The life of a pack must be tied to the life of the contents. If the pack tends to *look* outmoded before the contents deteriorate, or in other ways helps to rotate stocks and single out relics, so much the better. There is thus a functional justification for fashion and change in the surface design of packages. The structure of the pack, however, must preserve the contents for as long as it is likely to lie on the shelf, at least. The Parkinson's pack is constructed from good quality, conventional materials, with an inner wrapping (not shown BELOW) covering the biscuits themselves, and fulfils these conditions.

Yes.

Ergonomics in package design relates mainly to designing within the limits of visual perception. The Parkinson's biscuit packs are singularly efficient in this respect. The main titling can be read at 10 yd. The surface design is a model of the art of clear communication. The size of the pack is such that it can be easily handled and if no basket is available it slips easily into a jacket pocket.

Yes.



Motor mower

The main dangers which are present in the use of a mower are those of getting fingers or toes, especially those of a child or household pet, into the cutting cylinder, and of cuts, knocks and grazes in handling, adjusting or maintaining the machine. It would appear to be fairly difficult for a user get his fingers into the cutting cylinder in normal use, and although there are some raw sheet metal edges here and there, they are not so exposed as to be considered dangerous. The starting cord pulls out to the rear, so that there is no prospect of the machine running over the user if it were started while in gear.

Yes.

The design has not long been on the market, so that accelerated life tests would be needed to give a firm answer to the question "Will it last?" Most lawnmowers are kept for 20 years or more, usually with indifferent care and attention. In the case of the Ransomes *Sprite* the maker's reputation for quality stands high, and though neither the history of pressed steel construction nor of the two-stroke engine is very encouraging, the firm claims that its own life test of 1,000 hours was conducted successfully. In use, the machine gives the impression of being rather tinny, and it vibrates heavily when the clutch is withdrawn, the engine racing. Nevertheless, no major faults developed during trials. Protracted tests would be necessary to confirm fully the results obtained so far during use.

Yes ?

The machine starts and steers easily. The handle height and control positions are adjustable. The starting cord is well placed, and the grass box is easy to put on, take off, carry away and empty. Adjustments and refuelling are fairly easy. Cleaning is not quite so easy if it is to be done thoroughly.

Yes.



continued

5 Does it appeal?

– sufficiently to make prospective consumers willing to pay the price demanded?

Dressing table

The Wrighton dressing tables had not been seen by the public at the time of writing. An assessment of its probable appeal was therefore based upon an observation of current market trends. The evidence suggested that at the price quoted it would sell on the mass middle price market (for which it was intended). The long line, the flush fitting drawer fronts, the heart shaped mirrors, the oval section legs reaching the full height of the carcass, and the rational arrangement of drawers and compartments are all likely to appeal to popular taste. Moreover, the dressing table is designed as one of a series to give many permutations on flush fitting or with free standing units.

Yes.

6 Is it profitable?

– enough to enable manufacturer and distributors to continue to market it?

The design makes extensive use of standardised elements such as the drawers, legs, carcass sides, timber widths, etc, so that production costs are at a minimum. Distribution is through existing channels and there is to be a planned marketing programme supported by national advertising. The price ensures a satisfactory mark up at both manufacturing and distribution stages.

Yes.

7 Does the design tend to raise rather than depress the current aesthetic standards of the class of product?

If the answer to this, and to all the previous questions, is 'Yes' then the design can be pronounced good, in its class.

Few industries exhibit such a wide variation in design standards as does the furniture trade. In it, one finds some of the most sophisticated and also some of the most vulgar designs of the time. There can be little doubt that the new Wrighton range comes at the better end of the scale, especially within its own price range. Thus it tends to raise rather than to depress the design standards of its class.

Yes.

8 Is it in the best of modern taste?

If so, then the design can be classed as 'high style', or at the height of its time. Such a design might be singled out for special commendation.

The design is such that the more discriminating user can derive pleasure from subtler qualities. The connoisseur might be interested to know that the geometry of the design is built up wholly from logical elements in which anthropometrics, structural theory, timber and tool sizes, Fibonacci numbers and the Golden Mean play their respective parts. This is a design which must be pronounced at the height of its time.

Yes.

9 Does it set a strikingly new standard in construction, performance or form?

– either as a breakaway design, or as the most highly refined example yet seen?

If the answer to this, and all the previous eight questions, is 'Yes' then the product is truly great design. Such a design is likely to be looked back upon as a milestone in the history of industrial design.

Had this been the original design with which Nigel Walters pioneered the twin mirror, or the Vanitory unit in which a new conception of the toilet worktable was embodied, it might have been possible to say that this product set a strikingly new standard in form. The latest Wrighton dressing table cannot be said to do that. Nor is it likely that this design will be looked back upon as the ultimate refinements of its type.

No.

Consequently it must be said that the dressing table itself, while being unquestionably good design both in and beyond its class, and at the height of its time, nevertheless falls short of being assessed as truly great design.

CONCLUSIONS

The acid test of a system is to try to apply it to difficult cases, and to see whether the answers seem reasonable. Having done this, it is interesting to see in applying this method of analysis that we can arrive at decisions about the comparative merits of design in completely different spheres. We can say, for example, that the dressing table achieves a similar standard of design to the pack, and though

Biscuit pack

The Parkinson's biscuit packs had not long been on sale at the time of writing. The probable appeal of these designs to the housewife is therefore a matter for conjecture. The circumstances of self service marketing have encouraged a trend, to which this design conforms, towards clearer and cleaner designs incorporating lifelike illustrations of the contents. A spot check on the reactions of a number of housewives tended to confirm the impression that the Parkinson's packs would have a wide appeal.

Yes.

Profitability in packages is almost impossible to measure. The nearest criterion is in the good use of materials and processes. Here, the design for production has been highly professional, both for print and for making up. The maker states that, with the new design, the cost of the package is only a minute proportion of the overall production costs and is well within the margin of profitability.

Yes.

First class package designs are rarer than one might suppose. Superficially excellent layouts are frequently spoiled by bad detailing. In the case of the Parkinson's biscuit pack there is no element in the design which drops below the high general standard of the layout. Together with meticulous detailing, the Parkinson's pack certainly raises the current standards of biscuit pack design.

Yes.

If the standard of precision and elegance of these packs is compared with that of the best furniture, textile or appliance designs to be seen, say, at The Design Centre, a strong correspondence of quality can be seen. There is a remarkable concordance between the crisp design of the Parkinson's biscuit pack and the latest Braun record player, for example. This package design may be said to be well up to the standards of the day, in any field.

Yes.

There is nothing so new or remarkable about these packs that they can be said to be in any sense a milestone in the history of industrial design.

No.

This design is thus good in its class, and up to the best standards of the day. It is something less than truly great design, however.

Motor mower

A small scale field trial seemed to confirm reports from retailers that the design has been very favourably received by consumers. It is one of the cheapest powered mowers on the market, and it presents a distinctive character, offering itself as a breakaway from conventional green and red colouring and crudely engineered appearance which generally prevails in this field.

Yes.

The use of spot welded sheet metal pressings in the design was calculated to offer, and will almost certainly prove to be, a more economic manufacturing proposition than conventional cast iron and steel plate construction. The maker's experience confirms this point. In fact the company's factory can more easily handle pressings than castings.

Yes.

This is probably the first serious attempt to style a motor mower. It is likely that the favourable reaction of the market will encourage other manufacturers to follow suit. The design can thus be said to have made a real contribution towards raising the standards of design in its class.

Yes.

By the standards prevailing in other fields of industrial design the Ransomes *Sprite* betrays a number of weaknesses. The slack, streamlined forms of the side pressings and fuel tank, for example, would come in for severe criticism if they were to appear on a domestic appliance. The presence of ribs, flanges and nuts on surfaces which should wipe clean, compare unfavourably with other products which employ pressings.

No.

This design is therefore good in its class, and worthy of notice as it represents a breakaway in a field which has shown little progress in the past 25 years. Beyond the confines of its class, the Ransomes *Sprite* falls short of the best standards of its day.

they fall short of truly great design they are both superior to the lawnmower. But within the limited space of this article it has not been possible to discuss fully the general criteria of safety, construction, etc, which the widely varied products should measure up to. Many more exhaustive analyses would be required before it could be agreed, for example, what given standard or specification

should be applied for the first four questions; and as the leading article in this issue says we must first decide "how safe is safe?", before we can give any quantitative assessment on this point. Each factor within the broad structure of analysis needs similar definition for each group of products. Were such standards agreed then the objective assessment of a design would be greatly simplified.

Communication and persuasion

JOHNE. BLAKE

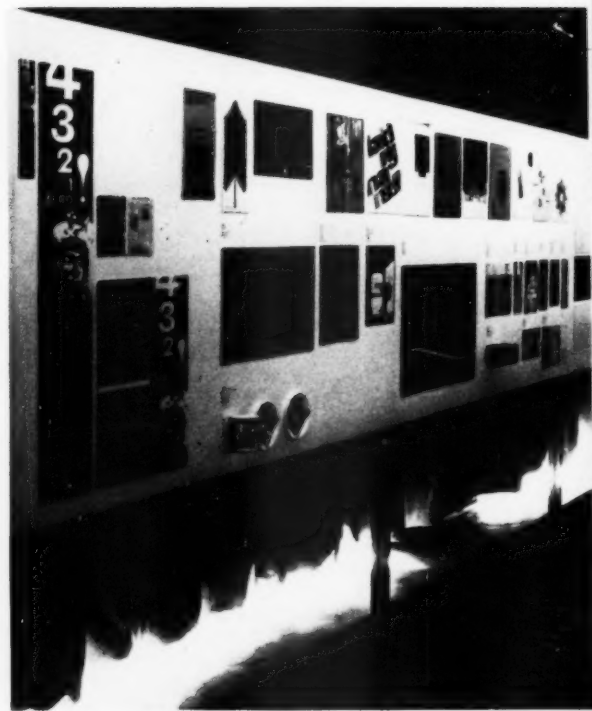
It often happens that when somebody has an idea, another person in another place has the same idea at the same time. Recently, within days of each other, two films about Oscar Wilde were released. A little later there was a similar coincidence – two exhibitions of work by British graphic designers. Rather surprisingly, such exhibitions are rare in this country, which makes their occurrence an event of special importance. In fact both were 'first' exhibitions by the groups which organized them: one, a show of members' work by the Publicity Design Group of the Society of Industrial Artists; the other a display by a new group of like-minded young designers called the Association of Graphic Designers: London (AGDL).

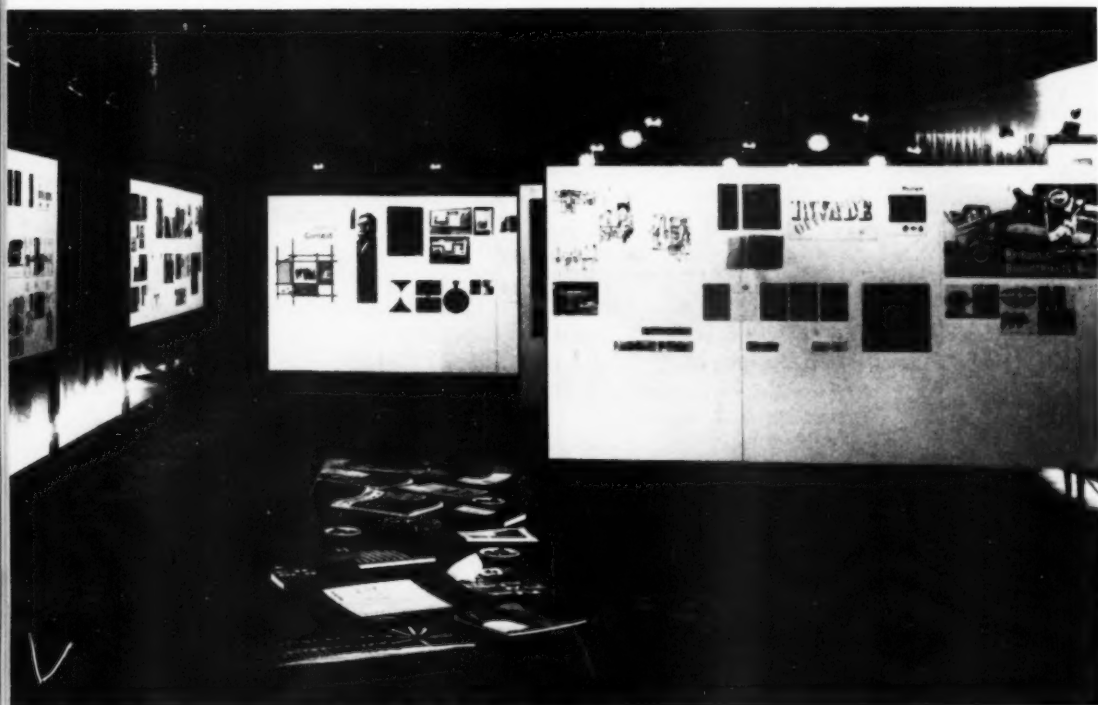
Such a feast of printed material can hardly fail to set off a whole train of reflections, particularly for the layman who is looking less for the niceties of balance and proportion in individual designs and more for the underlying message of the work as a whole. But before pursuing these thoughts it is necessary to clear up one matter about the relationship between the two organizations.

The SIA exhibition had been planned for a good many months before it opened and when, later, there was news of a second show there were plenty of rumours that the AGDL was a break away movement, a sort of *Salon des Refusés*, among those who considered the SIA to be stodgy, academic and died-in-the-wool. Judging by the comments of AGDL members, this rumour is groundless. They consider the SIA to be the legitimate professional body in this country and in fact several AGDL members belong to it. They *do* see the SIA, however, as a body whose catholicism admits work of a type they cannot support, and they wish to give identity to the particular approach they represent by banding together.

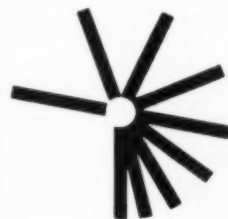
This is evident if the two exhibitions are compared. While the SIA display contained much which seemed to be on a strictly 'commercial' level, everything in the AGDL show maintained an even standard of sophisticated invention. But if they are honest the AGDL members must admit to the power of such SIA work as the poster by Abram Games for Guinness, or the brochure covers by Sydney King, or the compelling symbol for the exhibition itself designed by Tom Eckersley.

Both organizations have produced literature which emphasises the realistic, functional basis of the work they are doing. The SIA plumps for 'persuasion', the AGDL for 'communication', to stress that graphic design is not a process of applying art to words, but is an activity requiring its own special qualities. "It would be wrong to assume", wrote John Commander in the AGDL brochure, "that within every graphic designer there is a painter struggling to get out". Yet in some of the AGDL





A general view of the *Graphic Design London* exhibition field at the Time & Life Building recently.



The symbol for the *Graphic Design London* exhibition. DESIGNER George Daulby.



A general view of the SIA exhibition, *The Art of Persuasion*, held at De La Rue House.



The symbol for the exhibition *The Art of Persuasion*. DESIGNER Tom Eckersley.

work (Alan Fletcher, Dennis Bailey, for example) there is a visual excitement that seems to have a painter's stimulus rather than a down to earth communicator's. And when looking at a graphic design exhibition, instead of looking at a poster or a booklet in the context for which it was intended, the eye gravitates towards the items in which the painterly qualities of form and colour predominate. As a result one finds oneself looking at 'art' and not at something which has a specific function.

This, of course, is a limitation of all exhibitions, but it has a particular relevance here because in a sense the graphic designer is always designing for an exhibition. The poster hoarding, the magazine stall and the office desk are all like exhibition panels in that each piece of work must compete for attention with its neighbour. But there is a danger in such demands for attention, for the designer is tempted either to produce work that is vulgar or, in escaping from this, to resort to sophisticated pattern-making. In either case the designer may seem so intent on gaining attention that he may overlook the fact that he also has to say something. This is obviously an oversimplification; but the point was illustrated by the AGDL display itself, which was arresting in its precision but infuriating to the visitor wanting to know more about the association. The captions were too small to read comfortably and the work of individuals was mixed together so that it was difficult to gain a clear impression of any one person's work.

Function explained?

The point would matter less if the *function* of graphic design had not been stressed so heavily by the designers themselves. What seems strange is that the functional *effectiveness* of their work seems to have been taken for granted. To have produced a design to the best of one's ability, to be personally satisfied with the result, to receive the approbation of one's colleagues, even to have pleased the client – all these may speak only for the artistic merits of the design, not of its power to persuade or to communicate. The designer of a washing machine or an electric mixer will always want to explain how it works and why it is arranged this way and not that. But even in the imaginary case history that introduced the SIA exhibition no explanation was attempted.

The fact that designers themselves will argue hotly about such things as the relative legibility of typefaces suggests that the function of graphic design, or rather the means of fulfilling it, is less clearly understood than it is claimed to be. In these circumstances more knowledge of the way in which the designer's work is used, the results it achieves, the effectiveness of the elements with which

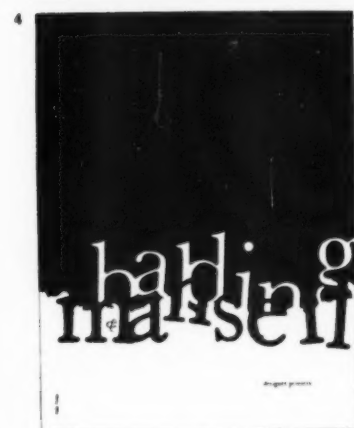
the designer works, and so on, are likely to prove of considerable value. What type of poster do people really look at on the Underground? How much factual information are people prepared to read in a Press advertisement? Is the package that first catches the eye in a supermarket the one that sells best? What letter forms are most legible in what circumstances? Methods exist which would enable such questions to be answered on a factual basis. It is recognized practice among some American firms to use eye cameras to record how the eye moves over the surface of a design, where it first focuses and where it rests after a certain period. Other devices test the comparative legibility of designs when seen at acute angles and provide information on various other matters. Many research techniques could be employed to find out more about the way in which the designer's work is used, just as research methods have been employed to help the product designer. The recent investigation into the effectiveness of safety posters, carried out by the British Iron & Steel Research Association (to be described in a future issue of *DESIGN*) is an excellent example of the type of work that can be done. But while this proved that safety posters can certainly be effective it did not go so far as to investigate if certain posters can be more effective than others. Whether the graphic designer would accept the results of such impartial investigation should it contradict his deeply held convictions remains to be seen.

The more one explored these ideas at the two graphic exhibitions, the more one looked for the particular characteristic that would result in persuasion or tried to decide which designs were really communicative. If the uneasy feeling remained that some of the popular newspapers, with all their brashness and vulgarity, communicate more directly than the contents of both exhibitions, it still left no doubt about which one would prefer to have. In this connection it was encouraging to see that one popular newspaper, the *Daily Express*, is using a designer for article headings (Raymond Hawkey) whose designs certainly did not look out of place among the prestige work of the AGDL members for such clients as *Time* and *Life*, Balding and Mansell, and Pirelli. One would like to have seen more work at this popular level.

If the two exhibitions had no other effect than to raise questions about the nature of graphic design, then the efforts of their organizers will have been amply rewarded. Perhaps it is the paucity of such exhibitions that causes the questions to be asked at all. If we saw more, if there were a journal on the lines of *Graphis* or *Gebräuch-grafik*, then we would take much more for granted, and the use of words like 'persuasion' and 'communication' to explain what it is all about would be unnecessary.

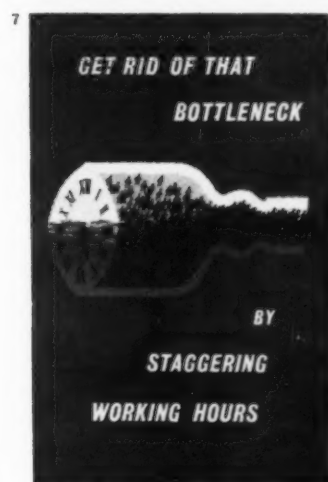
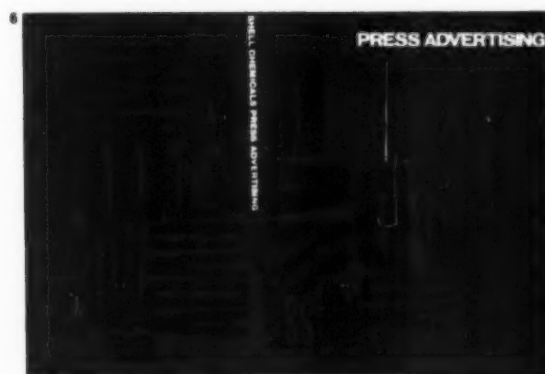
Some of the work shown at the
'Graphic Design: London' exhibition

- 1 Heading for a newspaper feature, DESIGNER Raymond Hawkey
- 2 Cover for a booklet, DESIGNER Tom Wolsey
- 3 Showcard for airline, DESIGNER David Collins
- 4 Magazine advertisement for printer, DESIGNER Colin Forbey



Some of the work shown at the exhibition
'The Art of Persuasion'

- 5 Poster for brewers, DESIGNER Abram Games
- 6 Cover for a Press cuttings folder, DESIGNER Sidney King
- 7 Poster for Ministry of Transport, DESIGNER Reginald Mount



modernising **BT** *ritish*
T *ransport no.4*



PULLMAN EXPRESS

The introduction of the first of a new series of diesel electric Pullman Express trains for the London-Manchester service was announced last month. In this article the author discusses their design, which he compares with similar Continental express trains. There can be little doubt that the new Pullman sets are some of the best rolling stock in Britain today and here they are critically assessed from the aspects of passenger comfort and amenity.

ROBERT SPARK

It is plain to anyone who has travelled by rail in Britain over the last few years that the new diesel electric Pullman trains are a considerable advance over existing equipment in practically every respect. Put simply, they are the first really modern trains to run on British Railways since before the war. They incorporate the work of a design team consisting of engineers, technicians and an industrial designer, working in association with the British Transport Commission's Design Panel. The interior includes air-conditioning, reclining seats, double glazed windows, extensive sound-proofing and thermal insulation, and the mechanical design is a breakaway from previous practice. Even the exterior colour scheme is new.

Originally conceived in 1955, an investigating committee submitted its report to the British Transport Commission the following year, outlining the broad requirements. As a result of this report the BTC nominated Metropolitan-Cammell Carriage & Wagon Co Ltd as the contractor. The general engineering design was the responsibility of the contractor while the mechanical requirements were laid down by the BTC. A condition of the contract was that the builder should retain the services of a designer who was acceptable to the commission's Design Panel. With the approval of the latter, Metropolitan-Cammell appointed Jack Howe to be responsible for the treatment of the exterior and interior, working in close collaboration with the manufacturer's engineers.

There are two types of train – two of six cars and three of eight cars. The six-car trains, the first to be completed for the London-Manchester service of the London Midland Region, are those described and illustrated in this article. They have only first class accommodation (the eight-car trains for the Western Region have first and second class seating) and each set is composed of two identical halves: power car with passenger saloon, parlour-kitchen car (with auxiliary power plant below floor level) and parlour car.

Certain features of the train, including the number and configuration of the seats, the fact that meals would be served to passengers at their seats, and that both reclining seats and air-conditioning would be utilised, were laid down in the specification.

Design problem produces compromise

The fact that the design team had to satisfy the BTC, the operating region and the Pullman Car Co added to the design problem. The development of the trains was

marked by two major meetings. At the first, the proposed layout for the coaches was agreed and no major alterations were called for. The second meeting was to examine the proposed design of the interior and exterior. This was done with the aid of mock-ups which were the scene of many lengthy discussions. One of the biggest problems, for example, was the seat design as it had to combine the twin functions of an armchair and a dining chair.

Reclining seats pose difficulties in design and the requirements for the diesel Pullman were particularly complicated. The specified layout – the traditional Pullman arrangement (face to face with a fixed table between) – and the seating density imposed rigid limitations. The result is an unhappy compromise. The chair has two movements: the first alters the position of the back to either an upright or slightly reclining position. The second moves the chair forwards or backwards. With the chair forward and the back upright, **3**, (following page), the position is good for eating at the table. It is in the reclining position that the chair seems unsatisfactory, **4**. Although the basic proportions conform to anthropometric requirements its width seems restricted and the headrest uncomfortable. It could probably be improved by having a small soft loose cushion in the headrest (attached by straps to the rear of the seat). Space seems restricted, and while it is appreciated that additional space could only be obtained with this type of layout by reducing the number of passengers accommodated, it is possible that alternative layouts would increase comfort while maintaining the required passenger density. This might mean a reconsideration of the catering facilities provided.

Some doubts must have been expressed on the wisdom of including passenger accommodation in the leading coach which also includes the 1,000 hp diesel engine, and in the kitchen car, which has a 190 hp diesel engine below the floor for generating current for the auxiliary services. The former is, however, quite satisfactory, while the latter is noisy enough to be noticeable, but free from vibration.

In conception, the new Pullmans are so close to the *Trans-Europ Express* trains that comparisons are inevitable. The *TEE* trains operate fast international services and provide only first class accommodation. Although all of them appear in a common colour scheme of red and cream and maintain certain basic standards of performance and accommodation, they consist of four different designs – French, German, Italian and a combined Swiss-Dutch design. Externally they reflect their country of origin; for

credits

British Transport Commission:

The design and arrangement of the diesel electric Pullman sets were carried out under the general direction of the chief mechanical engineer in collaboration with the chief electrical engineer and chief traffic officer of British Railways Central Staff, BTG, The Pullman Car Co, and the BTG's Design Panel.

Industrial design consultant:

Jack Howe for general exterior and interior design, detailing and finishes.

All in association with the Metropolitan-Cammell Carriage & Wagon Co Ltd.

2



example the difficult problem of frontal treatment is dealt with variously from the aggressive German example to the much more imaginative Italian treatment. On the other hand the British diesel Pullman suffers from a weak, unimpressive nose. The faceted shape, when seen from a three quarter view has the effect of reducing the apparent width at the front, making the train look strangely tall and narrow – an effect evident in 2.

Imported ideas

But internally the Pullman trains are better than some of the *TEE* trains, although the basic design appears to owe much to the Swiss-Dutch example. The diesel Pullmans also use other Continental ideas, and this is sensible since this country has lagged behind the Continent in the design of passenger coaches during the last 20 years, and there is no tradition of steady development from which new equipment could be evolved. There are for example

3



German diesel engines, Swiss traction motor drives, and also bogies and corridor connections which have been developed from certain Swiss principles, and French inter-coach electrical connectors. Most of these items have been made under licence in Britain.

On one major point the Pullmans score over many similar trains overseas. This is in the matter of detailing. Many of the smaller fittings are very well integrated with the overall design. There has obviously been considerable care in the selection of existing equipment as well as in the design of new fittings.

On the whole, the new Pullmans are certainly in advance of existing British rolling stock, and are up to the best standards in other countries. The trains are in the luxury class, but there are many features of the design that are equally applicable to every type of passenger vehicle. Detailed descriptions and comments are contained in the captions to the illustrations.



Interiors of the new trains, **6**, bear no resemblance to Pullman's traditional cosy 'parlour' car, **5**. The new coach interior has a straightforward uncluttered appearance and the details are well related to one

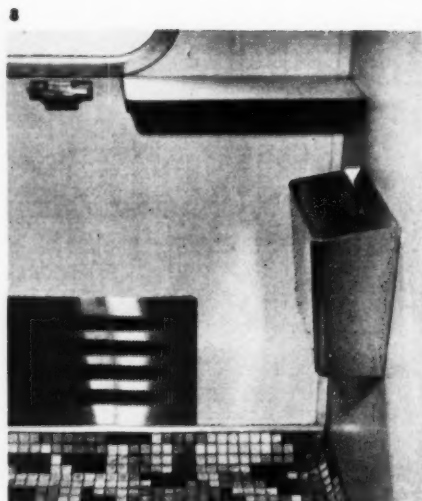
another. Wall surfaces are covered in PVC plastics mounted on $\frac{1}{4}$ -inch foam plastics, and end panels are rosewood or ebony veneers. Upholstery fabrics in wool and nylon are either blue or red, with the carpet contrasting with the seat upholstery, being either red/black or blue/black. Grey laminated plastics cover the ceiling and in the centre is mounted the principal lighting - fluorescent tubes behind Perspex panels, flanked by the air-conditioning outlets. The overall colour scheme is subdued, reflecting Pullman's quiet and efficient service, while insulated walls and roof, sprung insulated floor and double glazing all emphasise a comfort-in-silence theme.

continued





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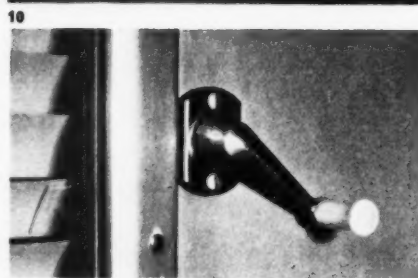
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Inward opening entrance doors, a standard feature on Pullman trains, are faced with laminated plastics. The door handle is a strengthened version of the award-winning Dryad design. Wherever possible the designer used fittings already in production, but where nothing suitable was available, a new design has been produced, as with the combined handle and indicator for the lavatory, 7. Here, the 'vacant engaged' sign is visible by simply looking down towards the handle and this item could well be standardised on all BR coaches. The toilet also features a new type of basin and water control, 9, which eliminates the ugly dirt-collecting anti-splash rim. There is only a single spray nozzle and the control knob above it is adjustable for cold, warm or hot water. When turned to any of these positions a pre-determined quantity of water is released. All the lavatory fittings are uniformly neat, but appearance of the lavatory is marred by the use of crude colours for the mosaic floor, 8.

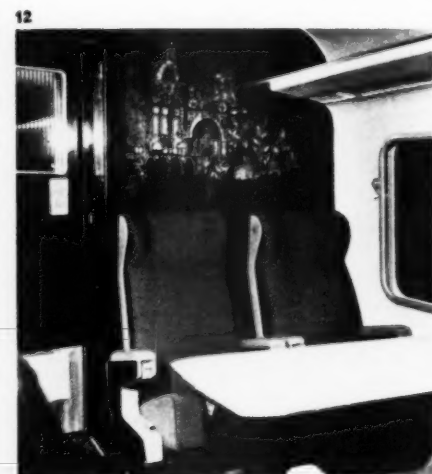
Slatted blinds between double glazed windows, 10 and 11, have been used on trains on the Continent for some time. On the Pullman they can be wound up or down and the inclination of the slats adjusted. In 11, can be seen a lamp, mounted from the body-side, which was a later addition demanded by Pullman to perpetuate its tradition of a table lamp. It is superfluous and is liable to get in the way, particularly at the single seat tables. End panels above double seats, 12, incorporate decorative inlays by George Mitchell. Leading to the vestibule the swing door, glazed with mirror striped glass, looks out of place in this context whereas the handle and kicking panel with inset grille are neatly designed. Nearly all items, such as window frames, table and luggage rack edging are scaled well, and show a high standard of workmanship.



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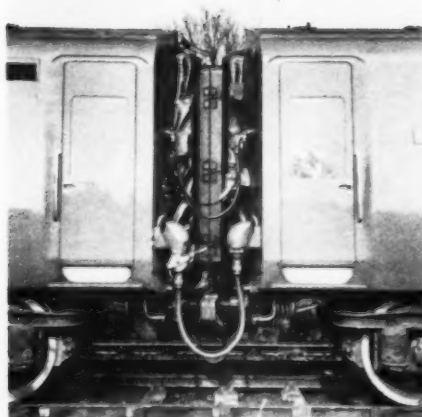
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A vestibule at the coach ends, **13**, is new to Britain and follows the Swiss design. It is wider than the conventional type, draught-proof, quiet and has a flat floor. The new gangway design embodies the buffing gear (only the outer ends of the powered cars have side buffers) and this avoids any slack between coaches and results in smooth starting and stopping. The same type of gangway has been used in the Swiss-Dutch *TEE* trains, **14**, but they have been offset to one side to provide more spacious vestibules. This technique might well have been applied to the British trains as it is not intended to divide the sets in the event of mechanical failure.



14

15



The nose of the diesel Pullman is commendably clean, see page 36, being clear of pipes, couplings, jumper cables and air-blast horns. On the other hand it lacks character and is not integrated with the rest of the design. While the sides of the power car have been kept neat and tidy and air conditioning has avoided the need for roof-mounted ventilators, the roofs of the power and kitchen cars are blemished by crude, bolted-down hatches, **16**. These are, of course, a necessity to allow access for

16

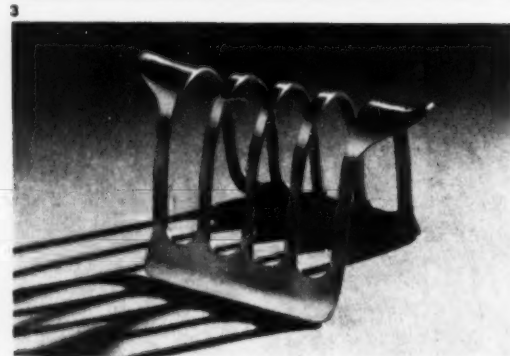


periodic servicing, though the treatment could be improved. British Railways insistence on maximum accessibility has led to two further unfortunate features in the external appearance: the ugly gap between coaches, **15**, with the exposed connections and cables; and the use of only a narrow valance or skirt to conceal under-slung equipment. The body panelling is of high quality, as is the finish. However, the choice of a blue and white colour

scheme, while attractive and distinctive, is debatable. Such colours have had a poor wearing reputation in railway service, although it is claimed that there will be no colour deterioration with the paint used on the Pullman. The lettering on the coaches is good, in keeping with Pullman's previous style, but the crest, which has been redrawn by Christopher Ironside, does not provide a forward looking symbol appropriate for such a modern train.

Review of current design

A selection of items recently accepted for 'Design Index', the CoID's photographic and sample record of current well designed British goods. 'Design Index' forms an essential part of The Design Centre, 28 Haymarket, SW1, which is open on week days from 9.30 am - 5.30 pm, and on each Wednesday and Thursday until 9 pm.



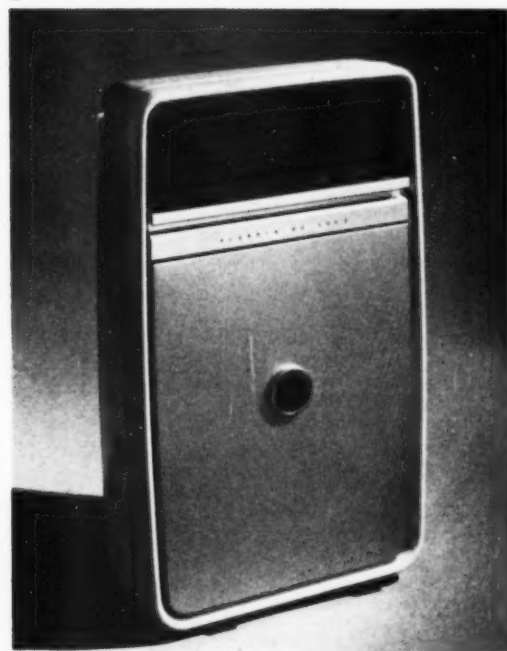
1 Glass floor vase (model LSW36) in steel and lilac colours. Height 15 inches approximately. DESIGNER *R. Stennett-Willson*. MAKER *The General Electric Co Ltd*. £12 12s.

2 Table mirror (model PC 180) in steel with black stove enamel finish. The pivoting mirror is backed with scarlet felt and framed with polished and lacquered brass. Height 16 inches. DESIGNER *Colin Beales*. MAKER *Peter Cuddon*. £3 9s 9d.

3 Toast rack (model 50301) made in stainless steel with satin finish and available with either five or seven bars. DESIGNER *John A. Brownsteward*. MAKER *Elkington & Co Ltd*. £1 9s (five bar); £1 15s (seven bar).

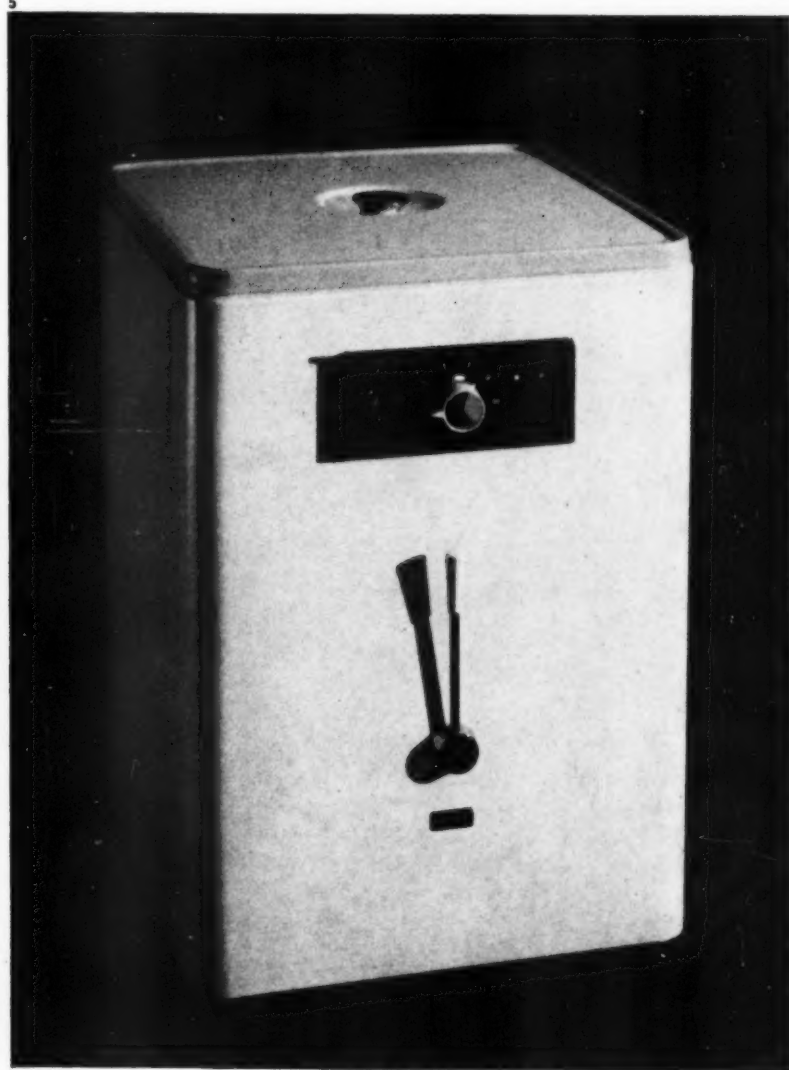


4 Easy chair (model *Tripes E*) upholstered in Latex and plastics foam with detachable zipped covers. The frame is of square section steel tube, stove enamelled in white, cream or grey. The arms, back and seat frame are available in oak or mahogany. Height 28 inches; depth 31 inches; width 28 inches. DESIGNER *Ernest Race*. MAKER *Ernest Race Ltd.* From £23 14s 5d.



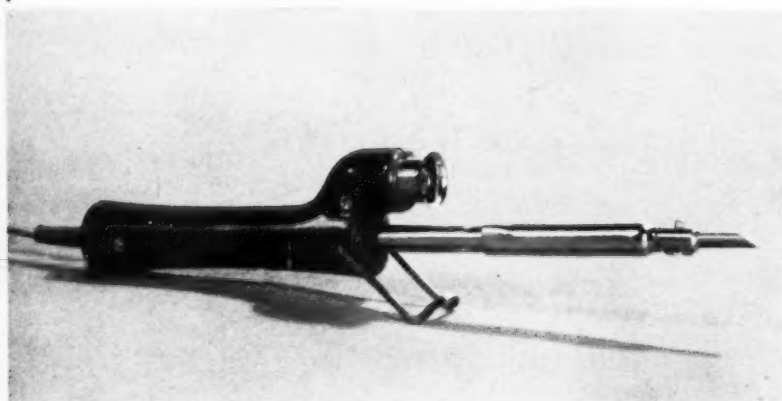
6 *Aladdin de luxe 3301* portable oil convector heater in steel and brass, and finished cream and gold stove enamel. The grille is in black vitreous enamel. The heater has an approximate capacity of 8 pints, and consumption is 27 - 45 hours for one filling. Heat output is between 3350 and 5580 BThU per hour. Height 26½ inches; width 16½ inches; depth 8½ inches; weight 22 lbs (empty). DESIGNER *A. B. Kirkbride*. MAKER *Aladdin Industries Ltd.* £11 16s.

5 Washing machine and spin drier (model *Double Plus*). Finished in white or honeysuckle stove enamel. The tub itself is vitreous enamelled. The machine has a capacity of 4½-5 lb dry weight of clothes and water capacity in the tub of 11 gallons. Height 32 inches; width 21 inches. MAKER *The General Electric Co Ltd.* £83 9s 6d.



Review of current design

7



7 Illuminated soldering iron (model 1072) with chromium plated steel trivet and bit holder, taking $\frac{9}{16}$ -inch pencil type bits. The handle is in red plastics (urea formaldehyde). The iron is supplied with 6 ft 3-core flex and a 6·3-volt lamp directs a beam of light on to the soldering point.

MAKER *Pifco Ltd.* 22s 6d.

8 VHF radio receiver (model A355) with dual speakers and piano key switching. The cabinet is in sapele mahogany veneer with satin finished metal grille and bands. The receiver is fitted with built in aerials and sockets for pick up, tape recorder and extension speaker, and operates on 200-250 volts A.C. Height 13½ inches; width 20½ inches.

DESIGNERS *J. K. White and B. Petts.* MAKER *E. K. Cole Ltd.* £33 12s.

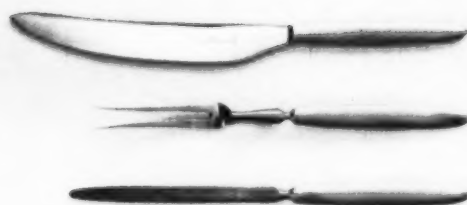
9 Floor lamp standard (model *Falcon*) made in mahogany, oak or walnut with ebonised or natural polished finish. The lamp is mounted on steel tube with anodised aluminium spacers. The flexible arm is adjustable and the lamp socket is pivoted. Height 3 ft 10 inches (to top of wood); diameter of base 13 inches; length of flexible arm 15 inches. DESIGNER *Richard Chick.* MAKER *Richard Chick Ltd.* £8 15s (oak, mahogany or ebonised); £10 1s 3d (walnut). Both prices exclude shade.



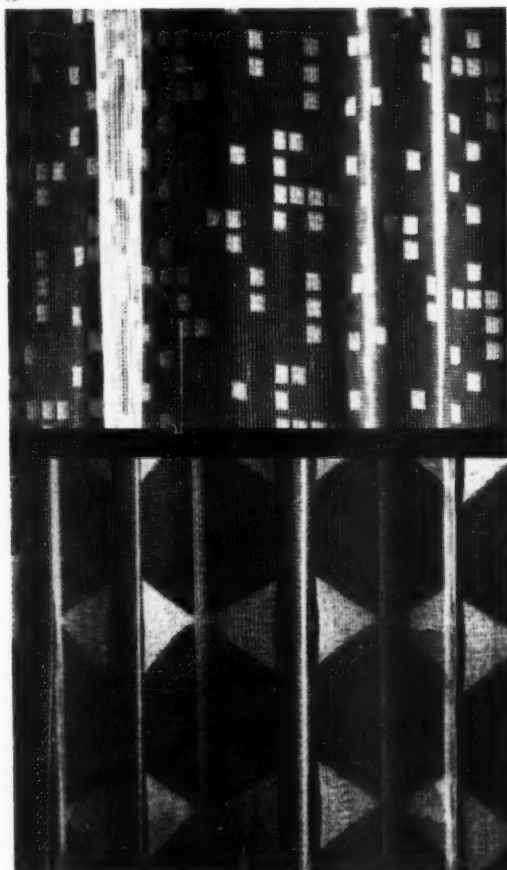
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10 Long-handled flower gatherer and light pruner (model *The Baronet*) with a stainless steel cutting head, designed for use with one hand. The handle is stove enamelled and other aluminium parts are anodised. DESIGNER *Arthur Wright*. MAKER *A. Wright and Sons Ltd.* £2 9s 6d.

11 Monte Carlo carving set in stainless steel with buff finished handle of carbon steel. DESIGNER *Guy Bellamy*. MAKER *Wostenholm & Son Ltd.* £3 17s 3d (three-piece set in box); £2 13s (knife and fork in box); £5 1s 6d (three-piece set in case).

12 Pruning saws (models 12T handled saw and 11 folding saw) with varnished wood handles. The teeth are specially set for cutting green and sappy wood. Steel blades are replaceable. Overall length 14 inches (handled saw) and 21 inches (folding saw). MAKER *Rolcut Ltd.* 16s (folding saw); 17s (handled saw).

13 Dice and Boxes terylene net. Available in white in three widths, 35, 50 and 60 inches. DESIGNER *Elizabeth Handley*. MAKER *Clyde Manufacturing Co Ltd.* From 8s 11d.



Some accidents must be accepted occurrences with the present system of road transportation, and many ideas have been put forward in attempts to reduce their severity mainly by putting the onus on the driver. Here the author concentrates on one approach alone – the use of a safety harness. The article is based on a comprehensive report prepared for DESIGN by J.P. Dennis and H.C.W. Stockbridge. Dr Francis Camps, reader in Forensic Medicine, University of London and Dr Keith Giles, a surgical registrar, offered valuable assistance for which DESIGN is grateful. A British Standard on safety harnesses was due for publication at the time this article went to press.

Courtesy Daily Mirror.

Six thousand five hundred and twenty people were killed on the roads during 1959. This year in March, 59 adult passengers in privately owned vehicles were killed; to this figure must be added the deaths of five children and a further 45 for car and taxi drivers who were killed. Total: 109 car occupants in one month.

We have all seen such figures in the newspapers and it certainly makes unpleasant reading. Without entering the long discussions as to how valid the statistics are, taking the figures on their face value two facts do emerge: out of 226 deaths (including moped, motor scooter, motor cycle, car and taxi users), nearly 50 per cent were occupants of cars. For serious injuries the car occupants account for 1,594 out of 3,413 reported casualties.

Dr H.J.H. Starks of the Road Research Laboratory reports, in an analysis of some 300 on-the-spot investigations of road accidents¹ that most vehicle occupants had received injuries by being flung about *inside*, rather than out of the car. It is not the intention to discuss here the many possible ways of minimising accidents to vehicle occupants, but it would seem that any device which stopped the occupants being flung around in a collision would at least minimise risk of death or serious injury. There is, in fact, little doubt that a well designed, correctly fitted safety harness will help in this way.

A great deal of material has been published on the possible parameters for safety harnesses (see page 48), discussing the maximum decelerations the human body can tolerate, and backed by medical evidence of how and

where the restraining forces should be distributed. But there is little evidence of any cohesive, comprehensive, practical approach to the problem in Britain. It is not the efficacy of a safety harness as such that need be questioned, but the effectiveness of harnesses in British cars and the whole attitude of the motor industry to the problem.

It is important that the new British Standard should include essential tests for static and dynamic loading and deterioration, and should specify those parts of the body which are best adapted to tolerate high g loads. But, however comprehensive, such a standard will not help the ordinary motorist who is faced with the problem of fitting a safety harness to his car. In Sweden a safety harness is fitted (as a standard item) to all the Volvo cars. The considerable resources of the Swedish State Power Board² were behind that design. The harness, a single diagonal strap, fastens on the central door pillar at one end, and the drive shaft tunnel at the other. To cater for high impact forces transmitted through the strap the car itself has a stress member in the door pillar. A version of this harness is available in Britain, yet it is to be queried whether it is so satisfactory in a British car as in the Volvo. Are British cars designed to carry additional high stresses at the necessary fixing points? This is a question which does not seem to have been considered adequately.

A further interesting point arises in the case of the Swedish Volvo safety harness. Originally the design was the single diagonal strap as described; but in an accident it has been found that the occupant, having been thrown

MALCOLM J. BROOKES

forward, then recoils, with the head whipping backward and thighs rising towards the dashboard. To avoid any complex injuries to the lower part of the body which may occur, Volvo's new design, 2, combines a diagonal strap with a lap strap, preventing the lower part of the body sliding forward under the cross strap.

Lap straps

There is a further simple example of the danger that can arise in taking data collated in one country and applying it directly to British cars. In America the Cornell Aeronautical Laboratory design of a safety belt is a simple lap strap. Its effectiveness (a probable saving of 50 - 60 per cent of those who would otherwise be killed) lies partly in the peculiarly American feature of the large number of persons who are killed by being thrown out of the car in a crash - a condition not so prevalent in Britain.

This type of belt offers little protection against jack-knifing - the body being thrown forward in a collision and pivoting about the lap restraint. However, again in America, this is not such a great problem as the locus of the head does not include the windscreen and facia. But does this apply in smaller British and European cars? The radius of the head's arc is of the order of 43 inches. Will the front seat occupants' heads miss the facia?

Here it must be said that there is a divergence of opinion about jack-knifing. Some of the safety harness manufacturers in this country reported that, when using a lap strap, the head does not fly forward and downwards toward the facia in a crash, but upwards. Whether this was said with full knowledge or merely in the hope of selling a lap strap, is difficult to say. Had the manufacturers themselves carried out full tests? There is a need to study these problems in this country - not just to accept evidence from other sources and use the results directly.

Nevertheless, it is commonly accepted that a device which restrains the upper part of the body as well as the pelvis, gives the greater protection to the front seat occupants (particularly the passenger). A surgeon with a particular interest in the design of safety harnesses from the anatomical point of view told DESIGN that in his opinion harnesses that apply loading to the chest cage *alone* are dangerous, but a part loading of the chest combined with shoulder and pelvic girdle restraints would be acceptable.

With the different seating arrangements for the rear, a lap strap alone might offer a practical solution for rear seat safety. In this latter case its effectiveness will depend largely upon the clearance between the passengers and the front seat.

Turning to a more detailed examination of the various fixing methods, the most common system for the present British designs is to anchor the harness to the floor behind the front seat. Thus the strap runs over the top of the back of the seat. When a deceleration of, say, 20g occurs, what happens to the front seat? Any rear seat passengers are liable to be thrown forward, together with loose articles, adding to the load of the front seat passenger's body. The force from the decelerated mass of the passenger's body is applied to the seat at the top. It is doubtful whether car seats are designed to cater for the dynamic loading which may well amount to 3,000 lb wt or more.

When correctly restrained the human body can certainly accommodate 20g decelerations as the US Air Force experiments with Colonel J.P. Stapp have shown. But "correctly restrained" implies not only that high g forces are distributed over those parts of the body which can best tolerate them, but also that the restraining device is correctly anchored and will not collapse or break loose. (Or if it does collapse, it does so deliberately to assist in reducing deceleration rates, while keeping the body and the passenger's head clear of other parts of the car.)

Which belt for your car?

To collect evidence of the British motor industry's interest in this whole subject, enquiries were made among 14 motor car manufacturers, asking which belt to fit to a specific make. Only one seemed to understand the difficulties involved, a maker of an expensive sports saloon car. The general manager of this firm pointed out that his company would only recommend a shoulder support together with a lap strap. The snag with the particular model referred to was that, being a two-door saloon, the centre pillar was too far back for fixing a shoulder strap. "We are still endeavouring to find a solution to this problem, and as you will appreciate, unless the belt is correctly positioned and anchored, it is quite pointless in fixing it." If the motorist went to an accessory dealer or motor agent, would he be so forthright in pointing out the



1 A single lap strap may offer some protection for a front seat passenger *provided* the restraint is so positioned that internal injuries are avoided and that the passenger's head does not strike any solid object. These conditions may apply to a child rather than an adult.



2 The latest design of harness, which is fitted to the Volvo as a standard item, is illustrated here. It has been approved by the Swedish Ministry of Transport and fully satisfies that organization's comprehensive standard¹⁰ (the specification includes tests for dynamic loading, deterioration and notes on those parts of the human body less suitable for high g loading). The three anchoring points can be seen; with this arrangement none of the restraining forces is applied to the back of the seat. The locking and release catch, integral with the belt, can be released with one hand. DESIGNER Nils Bohlin for AB Volvo.

Secured safely?

difficulties? Is the dealer in a position to know about the shortcomings of a particular car?

The other manufacturers' replies to queries concerning specific models were generally unenlightened. "See the dealer from whom you bought the car", said one. Ask — for details, we believe some owners have fitted his, said eight others. One manufacturer enclosed literature on a specific design but again would not commit himself to a firm recommendation.

But one reply stands out above all others. The company, a member of a large combine, recommended a lap strap which it could supply as an optional accessory to most of its models. When the weight of evidence suggests that a full restraining harness is necessary, it is a perturbing thought that this single manufacturer should have plumped for the less satisfactory solution.

Perhaps the new British Standard will alter the situation, but as yet harnesses remain only as accessories for British made cars. However well meaning an accessory manufacturer is, the only satisfactory approach to the problem is for the vehicle maker himself to produce a packaged system in which all the necessary fixing points, stress members, etc, are considered integrally with the specific car body design. It is doubtful whether accessory makers are in a position to exert sufficient influence so that the whole vehicle can withstand the high g loads that safety harnesses are designed for. Again, how can the small firms be expected to devote as much time and money in developing one type of harness for one model of car as the car manufacturer with his vast resources for research and development? And one harness for one model of car is the ideal to be aimed at — not the unhappy compromise of one harness to fit any car.

One of the greatest drawbacks to encouraging the motorist to use a safety harness is this shirking of responsibility at the manufacturing end. Few owners will want to turn their new cars into the local garage to have holes drilled in the bodywork; in any case, with the present state of knowledge who is to say which make of harness is the most efficient for a specific model? If the harness were with the car on delivery, at least there would be a temptation for the occupant to use it.

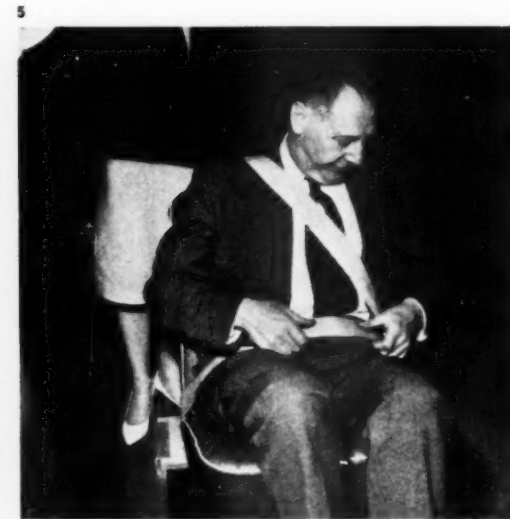
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3 The Richmond Mk VI design, a combined single diagonal shoulder strap and lap belt for driver protection, has only two fixing points — to the chassis on the offside and to the floor or transmission tunnel in the centre of the car. By necessity the diagonal strap passes over the back of the front seat but the fixing points are mounted as far back as possible. This has the advantage of reducing the turning moment applied to the top of the seat. A full harness for passenger protection is also available. DESIGNER Michael Richmond. MAKER Siebe, Gorman & Co Ltd for Michael Richmond Ltd. £8 10s. (Mk VI)

4, 5 Another design which combines diagonal and lap straps is illustrated in 5, being examined on an exhibition stand. Beneath the user's left hand is the single buckle which runs freely on the combined diagonal and lap strap. A short length of webbing which must be fed through the buckle, anchors the harness to the left of the seat. To avoid interference with rear seat passengers the anchor points are mounted forward, 4. Thus the restraining forces are applied at the top of the front seat, which may give under the impact. The small clip is used to stop the belt sliding down the side of the seat. MAKER Irving Air Chute of Great Britain Ltd. £4 15s (model CH2).



6



7



6, 7 The securing buckle of the *Masco G Belt* fastens in front of the body. This harness is a combination of lap strap and two shoulder restraints in which the lap strap must be fed through the buckle, **7**. The shoulder straps, using the same rear fixings as the lap strap, **6**, are crossed behind the seat and therefore cannot slide off the shoulders. The front ends of the shoulder straps are secured around the lap belt. As the body is thrown forward the lap strap and buckle may be pulled upwards into the chest. Again, considerable forces will be applied to the top of the seat. **MAKER** *Mitchells, Ashworth, Stansfield & Co Ltd.* **DISTRIBUTOR** *Bradville Ltd (to the wholesale motor trade).* £6 12s 6d (complete harness); £4 4s (lap strap only).

8



9



8, 9 Many of the comments made about the *Masco G Belt*, **6, 7**, apply to this harness also, particularly about the positioning of the buckle in front of the body. The single quick release buckle, **9**, looks complex and is awkward to fasten. This particular type of harness has two fixing points on the rear floor; one for the lap strap (seen behind and partially beneath the front seat), and the other mounted further back (concealed by the rear passenger's foot). The vertical strap gets in the way of the rear seat passenger, and yet again the argument of the shoulder harness relying on the strength of the front seat, can be applied. **MAKER** *Delaney Gallay Ltd.* £4 4s (complete harness).

Photographs 1 and 3 by John Garner, and 4-9 and 11 by Sam Lambert

10



11



10, 11 This British version of the old Swedish safety harness is the only make available in this country which avoids forces on the back of the front seat. The two fixing points are on the central door pillar and transmission tunnel. It is simple to put on and release but it is to be queried whether British cars will tolerate high loads on the door pillar, in the case of the version illustrated in **10**. At the same time there is no pelvic restraint with this make. The single central fixing between the front seats, **11**, offers no restriction to the rear seat passengers. As with several of the harnesses illustrated in this article the maker claims that, with some variation in fixing points, the straps can be fitted to most makes of British car. In a two-door saloon for example, the upper fixing point anchors on or just below the rear side window sill. **MAKER** *Britax (London) Ltd.* £4 4s.

Improving farm buildings: a discussion



James Noel White, in a recent article (DESIGN 131/30-37) which discussed the design and siting of farm buildings, outlined the advantages and disadvantages of mass produced buildings now on the market, and suggested that the industry has yet to produce a well designed and efficient building. A discussion was subsequently arranged by DESIGN to find out how improvements could be made. Held under the chairmanship of Sir Gordon Russell, the meeting represented manufacturers, designers, farmers and the Ministry of Agriculture, Fisheries and Food. The starting point of the discussion was the apparent tendency of many people to reduce the problem to a townsman versus countryman argument.

Those taking part were:

Sir Gordon Russell, Council member and formerly director, CoID, in the chair

Noel Carrington, farmer

F. W. Holder, chief architect, Ministry of Agriculture, Fisheries and Food

Travers Legge, The Farmers Weekly

Eric Le Grys, sales director, Atcost Ltd

Harry Knott, works director, Croggon & Co Ltd

John Voelcker, architect

James Noel White, deputy director, CoID

Peter Whitworth, industrial officer, CoID

SIR GORDON RUSSELL In considering the design of farm buildings we didn't want to cut in on the practical side of building, for we believe it's not a case of amenity versus the practical side; it's a case involving both. The building has, first of all, to do its job properly, and must be placed where it can most conveniently serve its purpose. I think that what we want to find out today is whether we agree that improvements are necessary in the design of the buildings, and, if so, how best these could be carried out.

NOEL CARRINGTON I've had a fairly long interest in design, so I hope I can speak from this point of view as well as that of the farmer. I think that the suggestion which has been made that farmers can be expected not to be insensitive to amenity is perhaps not quite realistic. Nearly all the farmers I know – I don't say they couldn't care less – but they would not be aware that amenity came into it; and the importance of providing economic buildings would weigh more than anything else. There are very few cases where completely new farms are planned from the beginning, either by landlords or farmer owners, and development is usually restricted to additions to existing farms. Of course the rebuilding of our farms is a generation overdue and most are obsolete. As I see it, the farmer has now got to accept prefabrication in building, partly because local materials and skills cannot be obtained as they used to be. As to the role of the architect, the farmer can of course get a certain amount of help at the inspection and sanction stage from the Ministry of Agriculture's advisory service, but I haven't heard myself of any case where the architect has gone beyond giving advice on siting from the point of view of efficiency. There are controls by, say, the rural district council, particularly where traffic infringement is concerned, but the farmer can at present put up virtually any building without any advice or help at all as regards design.

The most we can do is first, to see whether the ministry couldn't provide help at the right stage, when the farmer is bound to be amenable, namely when his grant has got to be sanctioned; and second, whether the buildings that are available to him and some of the components couldn't be improved. As far as I know, no manufacturer has put on the market any cladding other than the corrugated sheet which is also used for roofing. This is the kind of detail I think it would be worth considering, and the farming community could have no objection to improvements of this kind.

misuse

F. W. HOLDER We are conscious in the ministry of this problem of the appearance of buildings, but we shouldn't overlook the fact that the ministry provides grants in aid of only 33½ per cent, and the farmer pays the rest. Naturally, therefore, we are not able to say all we might like in certain cases and the element of compulsion must be limited to certain essential aspects to ensure that public money is being spent in the right way.

We like to be able to discuss applications with the farmers at the early stages of planning to ensure that a soundly designed job is submitted. I feel myself

that the main criticism of farm buildings must be levelled, first, at the wrong use of site and second, at the frequent misunderstandings as to the best way to use particular materials. You must understand the peculiarities of the site before you plan, for I think they could very well influence design, especially when it comes to using large span buildings.

SIR GORDON Variation of design relating to site – surely that's exactly what you can't do in prefabricated buildings. Oughtn't we to start at the beginning – are these buildings well-designed factory-made products?

HOLDER I mean that one must judge whether one should use a very large span building or whether one could use several smaller spans, side by side, making greater use of site levels.

co-operation

T. LEGGE I would like to make the point that while agriculture is one of our biggest industries, it consists almost entirely of very small businesses indeed. So small in fact, that an architect is very rarely concerned in the conception of a scheme and very few businesses are big enough industrial enterprises to warrant his employment. A great deal of planning is done between the farmer, the local builder and the manufacturer whose prefabricated building is being used. I share with Mr Carrington the notion that farmers as a race are rather indifferent to the appearance of the buildings they put up, particularly if they can find a building which is at once cheap and functional. You see, we have only recently begun to make any real progress with the functional design of farm buildings in Britain for several reasons, and we're not really very sure yet of the kind of buildings we want. That means that we tend to put up shells of buildings in which we can install various types of fittings which can be varied as required at any time.

SIR GORDON There are two separate problems here, as I see it. The actual design of buildings themselves as industrial products, and the siting of them; you can't have standardised siting plans and every farm presents an entirely different problem. We should hear from a manufacturer on this question; Mr Le Grys could perhaps comment on what has so far been said.

A. E. LE GRYS I agree with Mr Holder very much that siting, rather than the actual design of the structure is far and away the biggest problem. But I also think that the co-operation with the ministry is probably not all it should be. Quite likely the ministry takes the view generally that we, the building manufacturers, are very highly commercialised and have only our own interests at heart. We obviously do have a commercial interest but the number of buildings we are putting up each week shows a deeper feeling about what we are doing.

We're faced, however, with one very big problem in that the farm improvement scheme is largely based on competition and the ministry invariably favours the lowest price in tendering for similar products. So often it's the last few pounds that are seriously in dispute – the last £20 is the major factor.

HOLDER May I come in on this one about the lowest

price? You will appreciate that the Treasury has always required that, when Government departments are concerned with spending public money, they should ensure that competitive tenders are invited and that where possible the lowest price should be accepted. But it's not quite correct to say that we always insist on the lowest price. We do have a system whereby a farmer who wants to use a particular type of construction, where he's got to know a certain firm of manufacturers and has always used their products, can use the product again in the form of a single tender, providing the ministry is satisfied the price is reasonable. But I would like to say this: cases have arisen where attempts to lower standards have been made by certain firms to save money. Not on the actual structure but in the fixing of sheeting or cladding.

SIR GORDON Mr Knott, you're a manufacturer; would you like to say anything about this?

H. KNOTT Well, I must agree with Mr Le Grys in much of what he said. We are mass producing components for the farm. Therefore the siting can hardly be our job. Siting can only come from the ministry. Most farmers would use the ministry's advisory service, rather than try and employ an architect.

So far as steelwork is concerned, I think it's true to say we have made great strides in the last year or so. New steel processings, portal frames, etc, are so far advanced as to be highly suitable for farm buildings. Roof pitches can be as little as 4° and still be weather-tight. We are manufacturing many buildings now with stanchions at 45 – 50 ft spacings down the side of buildings and we are approaching the stage where the farmer can do what he likes about the infilling. We have special designs with overhanging eaves to protect the sides of, for example, a barn, and to give a far more attractive appearance.

SIR GORDON Mr Voelcker, you're a designer of farm buildings. It would be interesting to know at what stage you come in.

flexibility

JOHN VOELCKER It varies a lot at present. Unfortunately, the architect in many cases is called in after the building has been put up to find out what is wrong with it and why it isn't working. I think with the kind of development there is in farming today, the question of layout and planning, and the amount of labour used to follow the main processes of the particular farm and so on, are quite complicated. And there's quite a lot of co-ordination to be done between the farmer's requirements and the possible ways in which the building can be erected. One particular point here is that cost standards are extremely low in farm buildings. One works between 8s and 14s 6d per sq ft of covered area. Now that's absolutely rock bottom, and there's very little choice of material or method of construction with that. I think that the precast frame, using asbestos cladding or locally produced blocks, provides quite a workable set of components.

What I think would be a useful development, and I can't see that the manufacturers of components would lose by this, would be greater flexibility in the frame for use of different materials. For example,



HOLDER "... criticism must be levelled at the wrong use of site and at the frequent misunderstandings as to the best way to use particular materials..."
Behind Mr Holder is Sir Gordon Russell

LEGGE "... farmers as a race are rather indifferent to the appearance of the buildings they put up..."





VOELCKER "... a real case could be made out for a small structure, bought off the peg ..."



KNOTT "... architects generally don't seem to be interested in farm buildings ..."

the question of cladding; asbestos is very suitable in a lot of cases, but not in others. Where for instance sheeting comes down almost to ground level at the corner of a building there is always a likelihood of fractures in the sheeting. In such a case it's very difficult to get a sheet out, because they're laid in sequence and you may fracture another sheet doing it. I think there is the possibility of developing an infilling panel that is put in position by the same equipment used to put up the frame.

Coming back to the manufacturers' position here, there is a place for package deal buildings, such as grain driers, gas stores, etc, which are always required. The building isn't simply cover, it's plant. Plant and cover should be integrated in certain types of building; the results are cheaper and often much more satisfactory aesthetically.

teamwork

A last point here – for the farming industry really. The grant scheme helps the farmer considerably in erecting larger buildings; you have to use permanent materials and put up a permanent building, which is reasonable enough. With small buildings on the other hand, the farmer often sees that he can save the 33½ per cent grant, plus more, by using old bits of material that are lying about the farm. The result is a sort of shanty town development, over which planning authorities have no kind of control. They are very often bad buildings, put up in the wrong place; just slapped up one season and allowed to decay. I think a real case could be made out for a small structure, say a post and beam structure, possibly of timber or concrete, that could be bought off the peg, taken away from the manufacturer's yard in the farmer's truck and erected on site. What this calls for though is a great deal of co-operation between manufacturers, simply because if these things are to be workable, the different materials must be able to be put together easily. In other words, some sort of co-ordination between concrete components and

asbestos sheets and so forth. Possibly some work by the Cement and Concrete Association, the Timber Development Association, or one of the asbestos combines, might be able to clear up this small building business and put it on a cheaper footing on the basis of a production run.

There must, however, be something to stand in for the vernacular and I think this has a lot to do with the farming process. With the increase in special kinds of building, a certain kind of precision is necessary, but they can produce local characteristics. These kinds of things are beginning to give a definition that for a long period has been completely lost.

the architect

SIR GORDON Would you agree that good factory produced buildings, not only for farm buildings, but for petrol filling stations, etc, could set the standard?

VOELCKER Yes, now is the time to pay some attention to the design of these components.

SIR GORDON How far do you yourself come into this, talking to the manufacturer and so on? Because it seems to me that the architect has really got to have an effect.

VOELCKER Not a great deal as a matter of fact. At present it tends to be at the organisation and planning stage. There is very little contact at the design stage. I select the building components most suitable for a given case.

LE GRYS Until the last couple of years, we haven't employed architects on our staff. Today we've got a large staff of architects who are very interested in the problems being discussed today. They are not primarily employed for that purpose; it's more an engineering problem than an architectural problem. But we are quite aware that there has to be an architect's influence in the design of a structure.

SIR GORDON The problem of teaming up the architect and the engineer is one of the things which are neglected in so many jobs.

KNOTT We are used to working with architects, but generally they don't seem to be interested in farm buildings. If an architect is not interested, it is difficult for us, producing a standard article such as a barn, to suggest to the client that he should go to the expense of employing one. But it does seem that the architectural profession ought to make more energetic ...

VOELCKER Yes, I think that what really can be done most usefully is that the architect should act as a go-between for the farmer and the manufacturer.

HOLDER I don't agree that architects are not interested in farm buildings. The problem is that the majority of farmers are unwilling to employ professional consultants. There is not a return sufficient to justify the average architect specialising in farm buildings, and apart from a few private architects and specialists within the ministry, there are not many who make a living from advising the farmer.

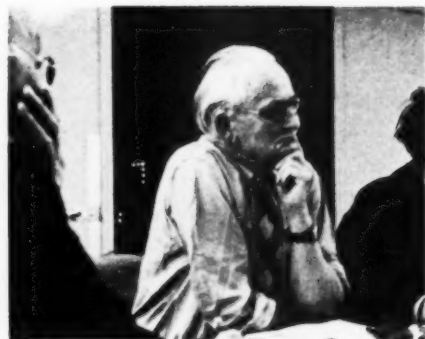
JAMES NOEL WHITE I think it is very rare to see a fine and undamaged prefabricated large building in the countryside, from personal observation. The main problem is the fitting of cladding to the frame, and even a very small degree of co-operation based on practical experiment, financed I should think by some federation or other, or a group of manufacturers, would prove of great benefit both to the user and to those who are trying to achieve a higher standard of building in the countryside. I would urge the suggestion Mr Voelcker made of the interchangeability of different types of cladding.

research

CARRINGTON I'd like to answer that if I may. There have been numerous suggestions in the last five years that whereas we have an Institute of Agricultural Engineering, which has done a great deal in the way of testing and improving farm machinery, we have not had any institute for farm buildings, where technical experiments can be carried through. If we had such an institute, that is the place perhaps



WHITE "... very often the ugliness many of us object to is due to clumsy thinking ..."



CARRINGTON "... rebuilding our farms is a generation overdue ..."



LE GRYS "... it's more an engineering problem than an architectural problem ..."

where manufacturers could continually improve their designs. At the moment, the farmer can only take what is in the catalogue. If it can be done for machinery it can be done for buildings.

LEGGES I think it's probably true to say that Britain is the only large agricultural country in the world which is given a direct Government grant for the purchase by farmers of farm buildings. At the same time it is the only large agricultural country which has no official research centre. It's a very curious situation, although such centres in some other countries haven't done much more than the work done by manufacturers and farmers in Britain. There are, of course, one or two exceptions, such as the National Farm Building Centres in Norway and Sweden. For Britain, it might be a better idea if we had a co-ordinating farm buildings centre for reference and information, and carried out experimental work at the universities. But I agree with Mr Carrington that sensible Government action is vastly overdue.

LE GRYS I think it's accepted by people connected with farm buildings that there is more need for research and I think I'm right in saying that the ministry itself has actually carried out research and experiment.

HOLDER Yes. The Agricultural Research Council is at present engaged on such a project.

LE GRYS I don't feel this really has a lot of connection with the aesthetic point of view of spoiling the countryside. I think it's a separate problem.

SIR GORDON It does seem to me important that experiment to find out the best type of building must take account of the architectural aspect.

VOELCKER I think the suggestion of a research institute of this kind is most important. I'm constantly finding that farmers have been experimented on in point of fact! Firms produce a package deal building and offer it with specifications. The specifications are not comparable and the farmer looks through

these and says: "Oh well, this is the cheapest one" – and takes it. Often it doesn't work from a technical point of view simply because it hasn't been tested.

WHITE Very often the ugliness many of us object to, if traced back to its origin, is due to clumsy thinking and *ad hoc* decisions. Technical development and architectural design are two factors which do in fact support one another.

LE GRYS This problem is surely a very deep one. It's going to need an awful lot of money and an awful lot of research to establish the correct way of doing things. But the question of cladding is not so difficult at all. As I said before, it is a question of the few pounds extra money spent on these structures.

design and function

WHITE Better design would produce better function. I think that the cladding is often an operational weakness of the building. Other things, when you get on to ventilation, heating and so on, raise very big technical problems, all of which have a bearing on this. Just to create an umbrella for the farmer to park things inside is not a logical way of providing the agricultural industry with a farm building.

CARRINGTON As far as asbestos is concerned, the manufacturers use the ordinary roof cladding placed vertically. In some cases, it has to be cut, laboriously and often very inaccurately, for it's an awkward material. The job may have to be done again after the ministry inspector has been round. It does seem to me as a farmer watching the job being done, as if not a great deal of thought had been given to the job in the factory.

LE GRYS I don't like the implication that no thought has been given ... if there's a problem that causes men to get hot under the collar and lose their tempers, obviously there's some fault in it. But I think the problem you're referring to is the matching of asbestos and corrugated iron.

CARRINGTON There is a problem of flexibility. Farm-

ers must think ahead about changing over from one function to another. So from the point of view of modern farming techniques, flexibility is all the more important. We want a material which is better looking and less liable to fracture than what we've got at present. A certain amount of latitude to choose and my own experience is that there is little to choose except ordinary vertical corrugated iron.

PETER WHITWORTH It does in fact exist. If you go to the asbestos people they will give you an alternative cladding. Farm buildings manufacturers also, but nobody puts it in their literature. There is no way of finding out without a lot of worrying.

SIR GORDON It is quite obvious that there are plenty of problems here. Is there any constructive action we can take to help?

WHITE From what has been said, improvements could be made without undue cost, if there were co-operation between manufacturers and suppliers of cladding. The ministry could be of the greatest help in putting across ideas through its representatives and information services, as can the agricultural Press.

SIR GORDON There is also this plea for a centre for research and testing and a lead is required. Manufacturers should take account of an increasing public consciousness and pay more attention to the architectural side of the building. They should, in fact, employ an architect or a skilled industrial designer. The present vast expansion in farm buildings is stimulated by the Government grant which involves a large amount of money and I do think that public consciousness is in itself a step forward.

It seems to me completely reasonable that temporary buildings can be pleasant in every sense; they do not have to be cheap and nasty. What we would like to see is that they are all well designed, and that they are all well sited in relation to the jobs they do. We in the CoID would very much like to lend our support and approval in this job, which I think all of us here have an interest in.

Holland

Consumer needs investigated

BRIGID O'DONOVAN



Several Dutch organisations concerned with home planning organised an enquiry recently to establish the essential requirements of a house. The results, published by the Bouwcentrum, the Rotterdam Building Centre, LEFT, are discussed here.



overseas review

Keeping their heads above water is no picnic for the 11 million Dutch. The endless fight with the sea, the terrible destruction of the war, the competitive sectarian birth rates, the exceedingly low death rate, the nine million cows, the need to compensate economically for the sudden loss of wealthy colonies by an equally sudden industrialisation – all add up to work for the building industry on a vast scale. (Thirteen per cent of total employment is in the building industry, as against six per cent in Great Britain.)

A watchful eye is kept on events by the Bouwcentrum, the big glass and brick Building Centre in Rotterdam, which houses a staff of 200 engaged in a variety of enquiries and services for all concerned with building. After the first flush of post-war building was over, it was noticed that the houses going up were not exactly the ample centres of a rounded and convivial family life which the Dutch hold in very high regard. Not surprisingly, they were austere. Since 1939 the population has increased by 25 per cent (the increase in the UK has been 8.5 per cent). The people are not rich (wages are about £8 10s for 48 hours and piecework earnings are under strict government control). The families are large, and expect to be at home both for the midday and the evening meal. The housewife seldom goes out to work, and must spin out the money by careful housekeeping, with little in the way of centralised services.

It is one thing to have a small ill-equipped house because one is poor, and quite another to have it because one knows no better. Although poorer than citizens of the UK, the Dutch standard of living is rising all the time, with the danger that small sub-standard houses would continue to be built for sheer lack of knowledge of what was needed. Furthermore, such houses would lose value, an important point where so many houses are put up, not by the local government, but by co-operatives.

In 1954 the Bouwcentrum, together with a large number of interested bodies, combined to set up a study of the functional principles of the dwelling. The study was to find out what activities were carried on and how a house was used for the storage of clothing, goods and food.

The essential requirements of a house were defined as "those which are essential for an harmonious development of the family and the individual, the fulfilment of which is, in principle, regarded by the majority of the Netherlands people as an essential condition for achieving an acceptable standard of living and housing from the material, moral, cultural and social points of view".

Simple methods were to be used in the enquiry and no attempt made, by the more complicated methods of work study and job analysis, radically to improve the techniques of housewifery. To embody new techniques in a new house means re-training the housewife. The enquiry very sensibly decided to start by drawing up the basis for a house to fit the housewife's present techniques.

A preliminary investigation was held first to find out what the family was grouching about most. This turned out to be storage, and it is likely that the work on storage space provides the most novel feature of the whole enquiry. The first step was to make an inventory of what was being stored. Use was made of the enquiry groups formed in 1953 by the Netherlands Housing Council. There were five groups of 400 households which, on the advice of the Foundation of Statistics, were properly representative according to size of province and municipality; size of family; religion (very important in Holland); and occupation. The groups were not entirely representative of the population as a whole because their members had to answer advertisements to get into the groups, and then fill in written questionnaires. They therefore represented a most active sector of the community.

The questionnaire was comprehensive, enumerating every type of garment, every size of pot and pan and every sort of bed covering. There was a 100 per cent response to the questionnaire as a whole, but the questions were unevenly answered. In the end nothing was put into the inventory unless it was mentioned in at least 70 per cent of the replies.

When the list of things to be stored was established, studies were made as to how the different things were used, and where they should be stored. Then the sizes of the cupboards and shelving required were established. (In

**Sleeping, clothing, personal hygiene,
baby care, etc**

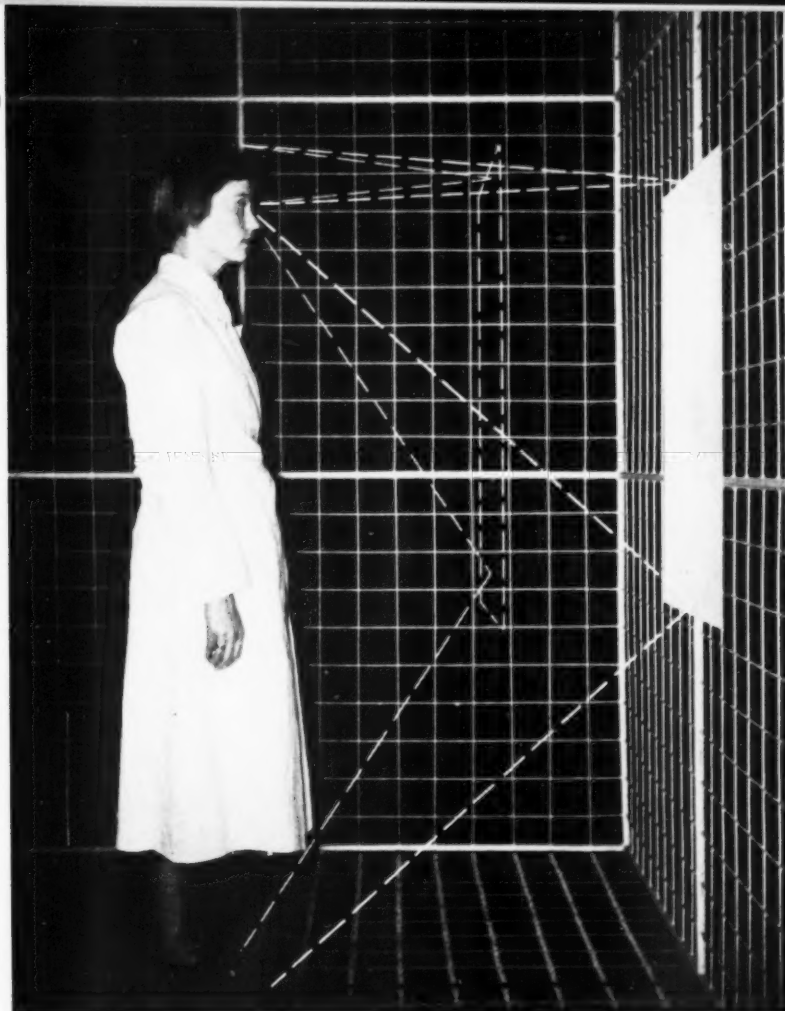
1 A free space of about 3 ft 9 inches is required in front of a full length mirror 2 ft 9½ inches high; if the mirror is higher the space in front can be shorter.

2 The hanging space required for a man's outer clothing is estimated at 28 × 24 × 57 inches.

3 An attempt to clean under a bed when the underside is 8 inches above the floor.

4 It is easier to sweep under the bed when the underside is 12 inches above the floor.

5 In the bathroom the shower trough is 3 ft × 3 ft; the water consumption is estimated at ½ of the amount needed for a bath. The stool has rubber feet. Two hooks are provided for the hand shower, one for use while standing and the other for sitting.



The grids shown in these photographs are in 10 cm units.

spite of the adage "a place for everything and everything in its place", it is most uncommon, especially with rising incomes and a plethora of possessions, for an English family to have any idea how much storage it needs. Half the storage space in English homes consists of the 'one saucepan in another' variety, entailing the maximum disturbance when things are removed for use.)

In studies of the use of equipment, walls and floors marked into 10 cm squares were used. Housewives of average height were photographed carrying out the various tasks against the marked-out background, and the size of the necessary workspaces was calculated accordingly. The method is not new, but is simple to use, and convincing.

What has been the result of all this work? In the first place, the results have been published in *Houses*,¹ a well-printed and illustrated loose-leaf volume. The text is in double columns, one English, one Dutch. (Most of the chapter headings in the report are given with the photographs that illustrate this article.)

There is probably no more comprehensive guide to the interior needs of the house. It is intended, as is so much of the Bouwcentrum's work, for the client as well as the architect. The architect cannot draw up his plan until the client knows what he wants, and this clear, easily available discussion of what he is likely to want, must be a godsend to the Dutch client, who is as often a small voluntary co-operative as a large local authority.

The dimensions of objects stored and storage spaces are given, the amount of room required for different activities, and a few layouts for the more complicated inter-related processes like cooking. In general, however, layouts have not been given. In the first place, each site and type of dwelling is different, and it was thought best to give detailed information to the architect, and then rely on him to synthesize the requirements. In the second place, a small dwelling must not be carved up into immovable cells for each activity. The space should be arranged as flexibly as possible, and the family must decide how to apportion conflicting claims.

Ideal homes

Besides the publication *Houses*, a family flat, based on the data shown in the study, was constructed at the Bouwcentrum last year, and shown to the public. This year a similar flat is being shown for a single occupant. These will be discussed in a subsequent article. As for fitments, Dutch firms are just beginning to make mass produced fitments in accordance with the recommendations.

With so much to praise, what is there to criticize in this careful, widely published, well publicised work? There is of course the point that some 90 per cent of new Dutch dwellings are built on too tight a budget to follow the ideals set out. Nevertheless, all can have some of the recommended features, and if the money spent on the remaining 10 per cent is well spent, they will become the models for the future. Without the necessary information, it is very easy to build a comparatively expensive yet uncomfortable house.

The lack of real anthropometric work is another point of criticism. Work which is actually referred to in the

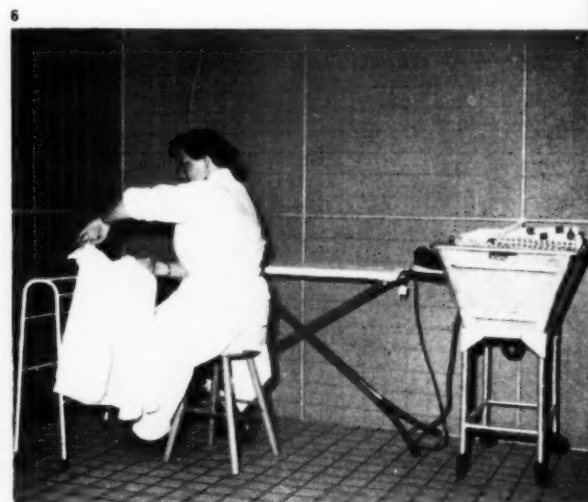
book (by Cornell University and the Svenska Slöjdföreningen) has been ignored in the recommendations. The existing height of the draining board, for example, is taken as the normal standing work height in the kitchen. As hitherto in England, the Dutch long for a unified working surface right round the kitchen, regardless of what work the housewife is doing, and regardless of the fact that different tasks need different heights. Here the working height recommended is 35½ inches – 37½ inches (36 inches in England). Custom has it among the lucky Dutch that most cooking stoves should be 33½ inches high, but *Houses* actually suggests that they should be raised to match the draining board unless side shelves can be provided. On the other hand the study recommends the very comfortable seated working height of 25½ inches.

How does the Bouwcentrum's work tie up with that done here? Some comparable studies have of course been made, mainly by the Building Research Station.² For example, there have been enquiries into the amount of time the housewife spends on different activities and in different rooms, and also into the amount and direction of walking in the kitchen, leading to suggestions for kitchen layout. A recent Scottish study³ showed that flat dwellers with less than 10 sq ft of built-in storage space were discontented, and those with more were not. Unfortunately these studies have not been published in permanent form. The fact that one can actually buy *Houses*, is one of its chief charms. The Dutch can also buy a much cheaper illustrated summary, but that has no English version.

¹ Available from Bouwcentrum Publication Department, PO Box 299, 700 Weena, Rotterdam, £6.

² R. G. Bateson and Elspeth A. Whyte, *Kitchen Planning. Experiments on a Working Kitchen in London Flats*, Building Research Station, reprinted from *The Builder*, March 13, 1953.

³ V. Hole and J. Madge, *A Case Study of Tenant Experiences in Some New Scottish Houses*, reprinted from the *Architects' Journal*, April 10, 1958.



Washing, drying, ironing and mending

6 The space required for ironing when sitting down is about 5½ sq ft: for ironing (standing or sitting) the height of the table should be 33 inches and the stool 24 inches. (The wheel tub can be used first for dirty linen then for clean laundry.)

7

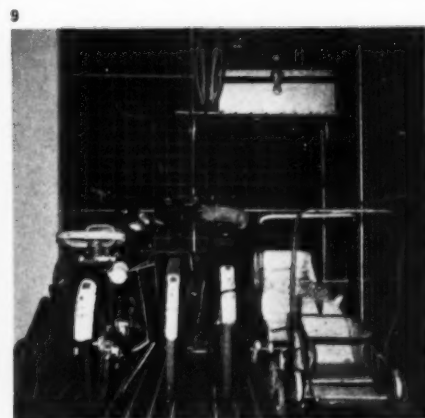


Spiritual and physical recreation and activities

7 A suggested play corner for children takes up about $3\frac{1}{2}$ sq yd.

8 An impression of the space required for a living room corner – about 6 sq yd.

9 The space required for the storage of prams, scooters and bicycles was estimated at about 5 sq yd.



10



11



Preparation of food, cooking and meals

10 A vertical drawer for storing large equipment.

11 The space required for storing dry groceries for a family of four (to be divided among various shelves) is about $5\frac{1}{2}$ sq ft.

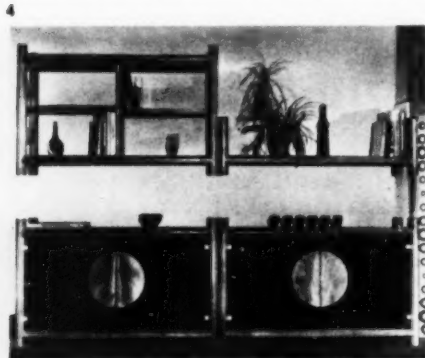
Anniversary display



Heal and Son Ltd's encouragement of young designers is well known, and it is typical of the firm that, to commemorate its 150th anniversary this year, it commissioned a series of special room settings from student designers in seven European countries.

The furniture, fabrics and the layout of the rooms were designed at leading art schools; the designers worked, in liaison with Christopher Heal, under the supervision of 'group leaders', many of whom, like Åke Hult and Gio Ponti, are internationally known. The designs were made by Heal's from prototypes or working drawings, and one or two of them are now in general production.

The exhibition was called *Designers of the Future*, but critics hoping to go trend spotting were warned off by Christopher Heal in his introductory note to the exhibition catalogue. The students, he writes, were not asked to design "rooms of the future", and adds: "We are doubtful if there is much value in attempting such prophecies, and consider it is more worthwhile to design furniture for the present day".



Most of the individual designs were well considered and the furniture was functional and flexible in use. Occasional chairs stacked, easy chairs could be pushed together to form settees, bench seats converted into beds, etc. The stacking stools in the Finnish nursery, 2 (designed by Ilmari Tapiovaara and past students of the Design Institute of Helsinki) were demountable and could be built up in various different play arrangements; the use of aluminium, glass and steel in the Swiss room divider, 5, provided a welcome change from the predominant use of wood throughout the exhibition; the Swedish room, 3, had a range of individual tables that could be fitted together in various group arrangements. (This room was designed by students at the Konstfackskolan, Stockholm, under the direction of Mr Hult.)

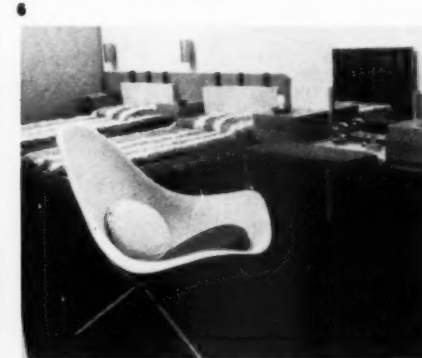
But in spite of this ingenuity, and the craftsmanship and quality of some of the designs, the exhibition was on the whole disappointing. This is probably due to the fact that there were few innovations, and that certain trends in furniture design today



seemed over-emphasised.

Although this was a seven nation exhibition, there was a uniformity of approach to design problems. Light woods were used extensively (in the German, British, Swedish, Finnish and Norwegian rooms). Again the 'sturdy' look predominated, with angles, sharp corners and constructional details emphasised. (This was carried to the extreme in the heavy furniture for the Italian room, 4, designed by Signor Ponti and students at the Milan School of Architecture.) The German room, 1, was one of the most successful; this was designed by students at the Staatliche Akademie der Bildenden Künste under the direction of Professor Herta-Maria Witzemann. The British room, 6, was designed by students at the LCC Central School of Arts and Crafts, under the guidance of Nigel Walters.

However, in spite of any reservations one might have felt about the exhibition, Heal's is to be congratulated for undertaking this ambitious experiment, since it was a valuable student exercise.



Breaking in a brand image

It is always interesting to witness the birth of a brand image, and never more so than when the products and services around which it is created are themselves new and unknown. Such 'double events' are rare, particularly in Britain where most of the brand images of recent years have started with the advantage (or disadvantage) of an established reputation and the graphic impedimenta of the past. However, the new Spar image, shown here, has started completely from scratch – both graphically and commercially.

The marketing situation leading up to the creation of this new image is unusual. Spar is in fact an association of two groups; Spar (Britain) Ltd (comprising 31 grocery wholesalers) giving special terms to mem-

bers of The Guild of Spar Grocers Ltd (a group of nearly 2,000 independent grocery retailers whose shops bear Spar identification).

It was with the object of creating a corporate image that Spar decided to brand and market its own range of packaged grocery products, and approach the Metal Box Co Ltd for the design of its as yet faceless range of packaged groceries. Spar's only fixed requirement was the inclusion of the Spar symbol – a fir tree within a circle. And it was from this very open brief that the designer, Leslie McCombie of Metal Box Design Studios, created the range illustrated here.

As always in jobs of this nature the design process, seen in retrospect, appears disarmingly simple and

inevitable. Taking first the existing tree symbol, Mr McCombie trimmed its originally fussy outline to the cleaner, more legible form shown here. A yet further simplification of the now basically triangular shape of the tree, and a check motif was evolved which has become the *modus operandi* of the new brand image. And certainly where the packaging is concerned it is an effective one. It repeats well in bulk display and, with television and monochrome Press advertising in mind, should lose little of its sparkle in black-and-white reproduction. Although the check motif does not sit so happily on the cylindrical containers, tending to slide out of view before the full effect of the check can register, it comes across particularly well on the plane surfaces of the cartons. The check appears in two and sometimes three colours, the combinations of which (black and orange in the lentils pack, for example; red, orange and green for the jelly) have been agreeably balanced and give a colourful boost to the basic check theme. For the main lettering Mr McCombie has used an adapted Garamond italic – a graceful face, yet robust enough to retain its legibility in colours other than black.

The motif has already been applied to a number of Spar vehicles and plans have been mooted to equip the group's shops with similarly chequered fascia panels and floor tiles. All this is logical to the building up of a brand image, but one cannot dispel a nagging doubt as to the wisdom of too liberal an application of a check motif, whatever the circumstances. One can have too much of a good thing and, certainly, as a visual device, a little check goes a long way.

G. E. MOGORIDGE



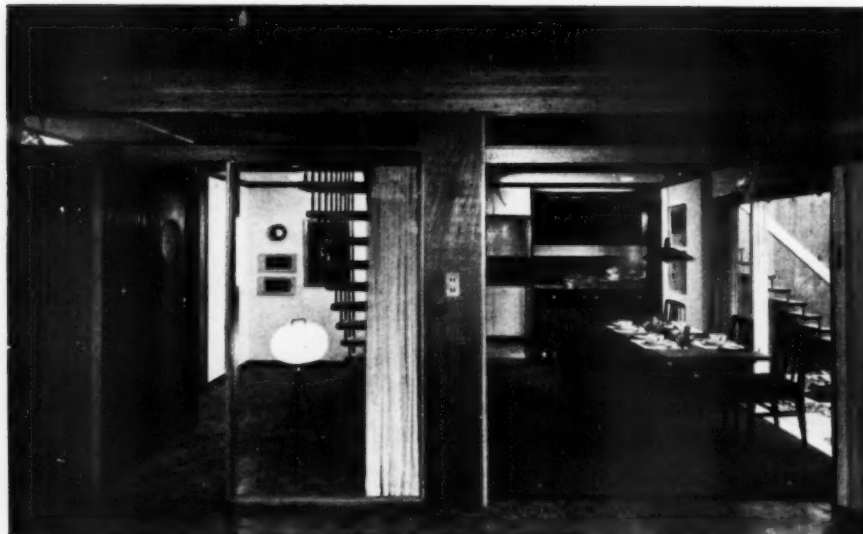
Miscellany



House of the year

Each year *Woman's Journal* sponsors a show house to demonstrate new ideas in house building and furnishing. The 1960 house, the fourth in the series, was designed by Gerald R. Beech and Dewi-Prys Thomas, and built by J. W. Jones & Sons (Builders) Ltd at Woolton, in Liverpool.

The architects have used timber extensively in the surface treatment and structure of the house; the ground floor is in brick, and the bedroom storey is a timber box resting on four laminated beams in the ground floor ceiling. The timber construction allows for continuous strip windows on the first floor, and these continue round the corners so that each bedroom looks out in two directions.



This house provides privacy in an urban area, with a closely knit relationship between inside and out, ABOVE LEFT. The open plan of the ground floor gives a sense of spaciousness (the illustration ABOVE RIGHT shows the hall and dining area seen from the living room). The internal partitions can be removed or changed if necessary, so that the ground floor plan is flexible.

A wooden staircase links the two floors; in contrast with the muted furnishing of the ground floor, the three bedrooms have been furnished to express the personalities of their individual occupants.

The central heating is adequate to warm the whole house, but the architect has included a fireplace "as a sop to the public's conservative ideas".

Although it seems a pity to shrink before public opinion, the treatment of the fireplace wall is very interesting, with recesses provided for telephone, television set, and coal hod.

This is certainly one of the best show houses seen recently, and it demonstrates what can be done when a builder employs architects to whom he gives a free hand. It also speaks highly for the way certain popular women's magazines are now encouraging progressive standards in domestic building and furnishing. But the price (approximately £10,000, complete with garden layout) will have to be less before it can be considered seriously as a prototype for development.

JOYCE MACKRELL



Plastics for convenience

During the past 12 years Racasan Ltd has been selling chemical toilets made from metal. These are treated with a variety of applied finishes, such as vitreous enamelling, galvanising, stove enamelling, etc. For the past four years Racasan has also been investigating the suitability of certain types of plastics, including polyester resins and various forms of polyethylene.

The immediate advantage of the *Paragon*, LEFT, the plastics model Racasan has recently introduced, is its lightness, which, in an article designed for portability, is of course essential. Close collaboration with Martyn Rowlands and the design department of E. K. Cole Ltd, together with further testing, led to the version illustrated here, in which four different types of plastics have been used. The main body, which has a capacity of 5½ gallons, is moulded in high density polyethylene, the lid from low density polyethylene while the seat fittings are made in nylon. A swivel PVC extrusion grip is fitted to the handle, which, like the other metal parts is in stainless steel. The seat clips firmly on to the container, but it is simple to remove, so that emptying is easy. The *Paragon* retails at £4 17s 6d.

HOWARD UPJOHN

PEOPLE

Dovetailing at Dover Street

The transformation of the interior of Bentsalls' store at Kingston-upon-Thames, currently taking shape at the hands of THM Partners, is one of those interesting commissions that prompts one to take a closer look at the designers involved. However it is not so much the individual talents of John Tandy, Lucy Halford and Derek Mills that have made THM Partners into a successful design organisation, as the degree to which these talents have been adapted and integrated, each to the other, in the day-to-day business of designing for industry. And this, moreover, in the diverse and not always complementary spheres of packaging, display, interior, furniture and – latterly – product design.

There is, of course, a necessary measure of specialisation within the organisation. In all, the staff numbers about 30; Mr Tandy, as senior partner (and prime mover in the setting up of the team when the three partners first met as fellow designers at Richard Lonsdale Hands Associates) handles most of the contact and packaging side of the partnership. Miss Halford heads the interior design studio and, when the job demands it, furniture design. Mr Mills is the main packaging designer and generally looks after the graphic design side.

The point about these divisions, however, is that they are by no means rigid and, particularly where questions of visual appeal are concerned, are apt to disappear to make way for an easy-going 'lets-try-it-this-way' interaction of ideas. And it is this element of interaction that has become for THM an effective safeguard against one of the dangers inherent in group work of any kind – head-in-the-sand specialisation.

Inevitably, the sense of unity within the organisation is reflected in THM's approach to design problems which, briefly, start from the old fashioned, but still valid premise that if a job is worth doing, it is worth doing well. In THM this means first demanding a full and exact brief. This has not always been easy. "There is always the language problem when one wants to talk design with a client, most of whom have had little or no experience of design and of what constitutes a proper brief." From here



Lucy Halford, John Tandy, CENTRE, and Derek Mills of THM Partners. Photograph by John Garner.

THM assesses the problem in terms of the external factors that can and generally do affect the design. These include the nature of the intended market; existing consumer habits or preferences (if any); what the retailer thinks (this particularly in packaging and point-of-sale), and a long look at what the competitor is up to (the danger of duplication, particularly in the branded goods market, is a very real one). Only when the complete marketing picture has been established are the covers taken off the drawing boards at Dover Street.

To return to the work for Bentsalls. For Miss Halford this is something of a personal *tour de force*, and is typical of the sort of job that THM likes to get its corporate teeth into. The work began over two years ago and is still by no means completed; the redesign involves new layout for the interior, colour schemes, lighting, display fittings, and furniture etc, throughout the many departments of the store. In order to do this job efficiently THM was able to indulge its taste for preliminary research to the full, and in co-operation with Bentsalls' own staff, examine among

other things, such factors as circulation, the ergonomics of counter work and the extent to which existing fittings and display facilities could be adapted.

Although the work for Bentsalls' takes a great deal of its time and energy, Miss Halford's team is also currently completing work on the London showrooms of Morton Sundour Fabrics Ltd. Last year THM redesigned the main showroom on the ground floor and is now working on the lower ground floor showroom which will display quilts, bedspreads and mats. THM's aim has been to open up both these floors so that they can be seen from the street, and to provide really effective lighting and display units – units that are flexible enough to become vehicles for many kinds of display. To complete this commission THM hopes to carry out some alterations to the fascia.

On the packaging design side THM has worked and is working for a number of companies covering a very wide field of merchandise, including cigarette packs for Players, a variety of packaged products for the Beecham Groups, as well as jam labels, biscuit wrappers and beer labels.

But despite the volume and the variety of its work in this field, it is perhaps significant that THM has avoided adopting anything in the nature of a formula in its approach to design. After nearly a decade of practical experience of designing for industry (during which, incidentally, the supermarket and commercial television have generated a formidable wind of change in presentation techniques), the THM directors remain in outlook healthy empiricists, preferring to see theirs as a profession in which the golden rule is that there are no golden rules.

G. E. MCGRIDGE

Apprentices at art school

Two of the student apprentices at Hoover Ltd who took part in the course on industrial design arranged for the firm by the CoID recently (DESIGN 135.69) are to start a part-time course at the LCC Central School of Arts and Crafts next month.

They are Peter Scott, a development engineer in the washing machine design section, and Philip King, a student apprentice who has just taken his final examinations for the Diploma of Technology. The two-year course will cover basic design, including colour, pattern, form and proportion, presentation drawing, modelling and project design, etc.

Royal designers

The Council of the Royal Society of Arts has recently made four new appointments to the distinction of Royal Designer for Industry. These are: Stanley Morison, the type designer and typographer; Alastair Morton, a member, CoID, a director of Morton Sundour Fabrics Ltd, and of Edinburgh Weavers; and Sir Basil Spence, the architect. Charles Eames, the American designer, has been appointed an honorary RDI.

Two medallists

The Royal Society of Arts' Bicentenary Medal for 1960 has been awarded to J. Cleveland Belle. Mr Belle, a former member CoID, was the first director

continued on page 63

Part of the lingerie department at Bentsalls Ltd; the layout and the display fittings were designed by THM.





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of the Colour Design and Style Centre which the Cotton Board established in Manchester in 1940; he is a director of Aquascutum Ltd, vice-president of the Incorporated Society of London Fashion Designers and has recently been appointed to the board of Colman, Prentis & Varley Ltd.

The RSA's Albert Medal for 1960 has been awarded to Sir Frederick Handley Page for "leadership in the design and manufacture of aircraft". This medal is awarded for "distinguished merit in promoting arts, manufactures or commerce".

Birthday honours

This year's birthday honours list included:

PC: F. J. Erroll, Minister of State, Board of Trade. Knights Bachelor: William Hunter McFadzean, President, Federation of British Industries; Basil Spence, President, Royal Institute of British Architects.

OBE: G. Grenfell Baines, architect, senior partner, Grenfell Baines Hargreaves.

OBITUARY

Kenneth Brayshaw

Kenneth Brayshaw, head of the School of Industrial Design at the Regional College of Art, Manchester, died recently. A colleague writes: "It is hard to believe that so alive and likeable a person as Kenneth Brayshaw has died. He had an Eames-like understanding of things that was both intelligent and skilful. He could understand any industrial or craft process on the briefest acquaintance and could often equal or exceed the performance of those with life-long experience in his first or second attempt at making anything. Drawing, woodworking, sailing, plastics moulding, machining, net making, precision casting - he had an immediate and sympathetic grasp of all these activities. This facility went with a quick perception of the practical and decorative possibilities of any medium.

"He was just old enough to have known and re-

tained the protesting and tougher-minded attitudes of design in the 'thirties which led him to oppose the teaching of styling and superficial design. He was one of the very few designers of his generation to dismiss the fashions of the 'fifties in favour of the now emerging developments of ergonomic, systematic and scientific design. These he understood and encouraged long before they received public attention."

MEETING

Designers' discussion

The talk on *Some Responsibilities of the Designer* given by Paul Reilly, director, CoID, at the Royal Society of Arts recently was really only an excuse for the big guns of the Society of Industrial Artists to fire off a few amiable broadsides at one another during the discussion which followed. This was made clear by Mr Reilly before he began.

Certainly there was no dissenting voice against his concise definition of the industrial designer and of his social responsibilities towards his client, his market, his times and his conscience. Mr Reilly ended his lecture by listing six Ts as the most necessary characteristics of a designer - "Technique, Talent, Taste, Tact, Tenacity and Tongue".

During the discussion David Caplan made it clear that he thought that the possession of talent made up for many deficiencies in other directions, and suggested that there just was not enough talent about these days. He also delighted the audience with some outrageous comments upon the Philistine attitudes of clients and advertising agents, upon American 'design factories', and upon the kind of designer who takes all the Continental design journals in order to find something to be derivative about. He rather capped his own comment by admitting what happened to him when he tried the experiment of avoiding all design reading for six months. He found that he was just old fashioned!

From the rest of the entertaining - even suave - exchanges in which Professor Misha Black, George Him, J. Beresford-Evans, W. M. de Majo and



Poster for print

This poster announcing the Package Buying & Print conference was awarded second prize recently in a competition for students organised by the Institute of Packaging. It was designed by Peter Rae, 21, who is a student at the Wimbledon College of Art.

F. H. K. Henrion figured, one serious difference arose. There seems to be a disquieting and unnecessary cleavage between graphic designers on the one hand and product designers on the other. Seen from the outside, the differences are more of emphasis and method than of principle, and it is to be hoped that healthy discussion within professional enclaves will not grow into, or ever be mistaken for, real professional jealousy and suspicion.

L. BRUCE ARCHER

EXHIBITIONS

Electrifying BR

British Railways is to hold an *Electrification Exhibition* at Battersea Wharf, near Chelsea Bridge, from October 3 - 9. The display, which will include new electric locomotives, rolling stock and AC electrification equipment, is being organised by The Locomotive and Allied Manufacturers' Association of Great Britain, and the British Electrical & Allied Manufacturers' Association, in co-operation with the British Transport Commission.

Cold - at home

The Design Centre comes to Liverpool exhibition (DESIGN 139/34) was an exceptional success - it was visited by more than 34,000 people - a daily average of about 2,150. One comment on the exhibition summed up the general attitude: "a pity this is not permanent - and it is marvellous that so many shops

continued on page 65

In the van

This adaptation of the Austin Seven and Morris Mini-Minor provides a compact 5-cwt van with a 46½-cu ft

load capacity behind the driver. Its unladen weight is 12 cwt, and it retails at approximately £360.





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have put supporting goods in the windows".

For the Overseas Shopper is the title of a special exhibition now on show at The Design Centre (the display closes on August 20). The goods exhibited there have been chosen for their British quality, and range from beer mugs and fishing rods to guns, binoculars and textiles.

The Design Centre comes to Bristol will be on show at Jones & Co Ltd of Bristol from September 29. The exhibition will be opened by Sir Gordon Russell, who recently retired as director, CoID.

CoID - away

The CoID's display at the *British Exhibition* in New York, BELOW, was seen by more than 300,000 people. The stand, which was designed by Neville Ward and Alec Heath, showed a wide range of consumer

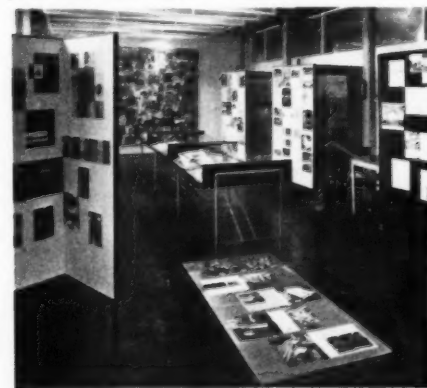


The CoID stand at the British Exhibition, New York.

goods. Lord Rootes described the success of the CoID exhibit at a Press conference recently, and mentioned that "well over 1,000 genuine enquiries were received from people who wished to make con-

Print team work

Percy Lund, Humphries & Co Ltd, world famous for its high standards of design in printing and for the exhibitions of modern printing it has been holding at its London office since before the war, recently staged its first exhibition at its works in Bradford. Design in Printing, BELOW, showed the work of its own typographical design team. The mural in the background - a collage of printers' waste sheets - is by Eduardo Paolozzi. Lund, Humphries' house style was featured in DESIGN 108-44-46.



tact with the manufacturers of the goods on display". A report on the exhibition as a whole will appear in a subsequent issue of DESIGN.

The CoID has also selected (on behalf of the Board of Trade) the consumer goods that will be on show on the British stand at the *Canadian National Exhibition* in Toronto this month. These include carpets, furnishing fabrics, furniture, kitchen equipment, etc. The display is designed by Leslie Gooday; the exhibition is from August 24 - September 10.

At home...

Business Efficiency Exhibition, Olympia, October 3 - 12.

Building Trades Exhibition, City Hall, Manchester, October 11 - 12.

International Motor Exhibition, Earls Court, October 19 - 29.

Dairy Show, Olympia, October 25 - 28.

... and abroad

International Motor Show, Turin, November 3 - 13 (apply Associazione Nazionale fra Industrie Automobilistiche e Affini, Corso Galileo Ferraris, 61, Turin).

British Columbia International Trade Fair, Vancouver, May 3 - 13, 1961 (apply Agent General, British Columbia House, 1-3 Regent Street, London, W1).

Stainless steel international

Canada's National Industrial Design Council is to hold a photographic exhibition of *Design in Stainless Steel*, in the Design Centre at Ottawa, from September 6 - October 5. A jury of Canadian design experts has selected the photographs of the products which will be on display there, and each firm or individual whose work is chosen for inclusion will receive a certificate. The aim of the exhibition, which is the first of its kind to be held in Canada, is "to salute the industrial designers, architects, manufacturers and architects who work with the material".

COMPETITIONS

Colour relief prints

The Victoria & Albert Museum has announced details of this year's *Giles Bequest* competition for original colour relief prints from wood, lino and metal. There will be a first prize of £75, a second prize of £50, and a third prize of £30. The closing date for receipt of entries is October 31. Further details are available from the Circulation Department, Victoria & Albert Museum, South Kensington, London SW7.

Guild Mark awards

The Furniture Makers' Guild recently inaugurated a scheme whereby furniture designs are selected by a specially appointed jury for the award of a *Guild Mark*. The aim of the scheme is to "enhance the prestige of the British furniture industry and encourage a high standard of quality by marking and recording for posterity British made furniture which... attains an outstanding degree of excellence in craftsmanship, materials, functional purpose and design".

Several *Guild Mark* awards have already been made, and the latest designs to be selected are an



A Guild Mark chair - see Guild Mark awards.

armchair by Parker-Knoll Ltd, and an easy chair designed by Robert Heritage for George Stone (Furniture) Ltd. This chair, ABOVE, has a beech frame; the cushions are in Latex, and the covers are fitted with zip fasteners.

Paint symbol

The newly formed Scottish Association of Paint Manufacturers held a competition recently for the design of a symbol. The competition was open to Scottish art schools and colleges, and the winning



design, ABOVE, which has been adopted by the association, was designed by Ian A. Robb of the Dundee College of Art.

MISCELLANEOUS

Consumers' international

An international organisation, the International Office of Consumers' Unions (IOCU) was established recently at The Hague, Netherlands, by delegates from 16 non-profit-making, non-commercial consumer testing organisations in 14 countries.

The main purpose of IOCU will be to act as a clearing house for consumer test methods, plans and publications. In addition, IOCU will assist consumer movements in other countries, and provide an information service covering efforts to raise consumer living standards throughout the world.

Dr Colston Warne, president of the US Consumers Union was elected president of the IOCU council. Caspar F. Brook, director of the British Consumers'

continued on page 67

Putting a business house style in order?



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This Spicers book deals with the first steps towards creating a House Style of your own—good design applied to everything, from business stationery to delivery vans and factory signs—that can help to give a consistent quality representation of a company to its customers.

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SPICERS Plus Fabric PAPER AND ENVELOPES

for business-like business stationery

Association Ltd was appointed treasurer, and Miss Eirlys Roberts, research director of Consumers' Association Ltd, is to be a co-chairman of IOCU's technical exchange committee. IOCU will also publish a monthly bulletin (in English, French and German), and its headquarters will be at 189 Harstenloekweg, The Hague, Netherlands.

Medical engineering course

Three courses in a new combination of medical and engineering sciences are announced in the USA. These may be the means of overcoming the present inadequacies in the design of medical equipment discussed recently in *DESIGN* (136 36-8). A joint course has been started by The Drexel Institute of Technology and the Philadelphia Presbyterian Hospital leading to a master's degree. Doctors and engineers are eligible and are at first taught separately in each other's subjects and then together in advanced engineering and medical research. It is hoped that the doctors "will lead in designing physiological research and the engineers in the conception and creation of instrumentation . . ." A similar course is starting at the University of Nebraska. A 'bio-medical' course for engineers only, being planned at Johns Hopkins University, is intended to train potential directors of bio-medical engineering departments.

Design firm for Midlands

Derek Hodgkinson, who has been staff designer to H. & R. Johnson since 1958, has left to become co-director of Argon Associates Ltd, a new industrial design organisation in Newcastle-under-Lyme.

The directors state that the company "has been formed to promote design in industry and offer to manufacturers the services of professional designers and artists". All designers employed by Argon Associates Ltd will be members of the Society of Industrial Artists; the firm will cover a wide design field, including ceramics, tiles, graphics, exhibitions, and furniture. The company's address is 8 King Street, Newcastle, Staffordshire.

Lens techniques

With the support of a long-term grant from the Department of Scientific and Industrial Research, an optical design group is to be set up at the Imperial College of Science and Technology, London, under Dr C. G. Wynne, of the Wray Optical Co. Ltd.

European alliance

At the invitation of the British Electrical and Allied Manufacturers' Association, the Conseil Européen de la Construction Electro-Domestique brought together in London recently manufacturers of domestic electrical appliances from the Common Market and Outer Seven countries. The Conseil consists of representatives of household electrical equipment manufacturers in Germany, France, Italy, Belgium, the Netherlands, Switzerland, and the United Kingdom; representatives of similar organisations in Sweden, Finland, Denmark and Austria were also invited to the talks - a discussion of the technical, commercial and financial matters now affecting the industry.

As a result of these meetings, manufacturers in Sweden, Finland, Denmark, Norway, and Austria



Show house bedroom

Several of the award winning entries in the Ideal Home small house design competition have now been opened as show houses in various parts of the country. Designers from the CoID's Record of Designers have supervised the furnishings (*DESIGN* 138 75). This bedroom, in a house in Pagham, was designed by Roger Worboys; the furniture was selected from 'Design Index'.

have been invited to join the Conseil, forming an organisation which will represent the main countries of Western Europe concerned with the manufacture of household electrical equipment.

Looking for the label

Over 11 million Design Centre labels have been supplied to manufacturers since the labelling scheme was inaugurated at the end of 1958. This scheme enables manufacturers to attach the black and white triangular Design Centre label to any product which has been displayed in the Centre, and currently is in 'Design Index'. The label therefore serves as a buying guide, especially to out of London shoppers.

Bristol Building Centre progress

The Bristol Building Centre and Design Exhibition which started as a pilot scheme in a garage building in 1956, is now a permanent organisation occupying two and a half floors of a new office block in the centre of Bristol. The main function of this organisation is its information service, based on a library containing over 6,000 sections of technical literature and a reference index (established with the help of The Design Centre in London) of goods which have been selected for 'Design Index'.

The Design Exhibition consists of a permanent display of CoID approved products. Although this display is smaller than that at the Haymarket, it nevertheless provides a display of a good cross section of industrial design which is being used more and more by local buyers and building owners. The centre also organises lectures and exhibitions.

The organisation is non-profit making, and any surplus made each year is spent on improving the service, or in founding scholarships. Its governing body consists of many of the leading figures in design, building and industry in the Bristol region.

Plans are now being prepared for a new building in the centre of Bristol which, it is hoped, will provide a much better service to exhibitors and the public in a building designed specially for the purpose.

Summer in Massachusetts

The theme of this year's summer workshop, organised by the design division of the Institute of Contemporary Art, Boston, USA, is *Designing with New Materials, Applications and Processes*. This course, which will run from September 8-18, is expected to appeal primarily to engineers and industrial designers. Further details are available from Theodore S. Jones, director, Design Division, Institute of Contemporary Art, Soldiers Field Road, Boston 34, Mass.

LETTERS

The general consultant replies

SIR: L. Bruce Archer, in his review of my exhibition held at the Institute of Contemporary Arts (*DESIGN* 138 65) seems intent on drawing the wrong inference from it. At the invitation of the ICA I showed examples of my work done over the last 20 years. The title was *Designing Things and Symbols* because, within the context of the ICA, this seemed to describe concisely its content. The subtitle *The Work of a General Consultant Designer* seems factual enough, seeing that during that period I was mainly retained by Government departments, corporations and industrial and commercial firms to advise on any or all of the following: trademarks, house styles, publications, advertising, exhibitions, display, interiors, product design, packaging and transport.

It is true that, like all the other members of this young profession, I have come from one field of design (graphic) and gradually extended my practice to others. (There is up till now no training for general consultant designers anywhere.) Thus in a display of the work of the last 20 years it seems only natural that graphic design should predominate.

In my consultancy work I have worked with and perhaps to some extent guided a very large number of specialist designers, ranging from engineers and architects to illustrators and photographers. It seemed, however, not within the context of a one-man show at an art institute to show too many samples of that kind of work.

Mr Archer knows I was not so presumptuous as even to attempt to use this one-man show as a demonstration of how a general consultant designer works with industry, or even to give a complete inventory of all the different ways in which the practitioners of this profession help many industries today.

It is symptomatic that both design critics and teachers (and Mr Archer is both) are often out of touch with reality, ie ignorant of the way in which design problems have to be tackled in industry (usually for very good reasons). Thus, the display of

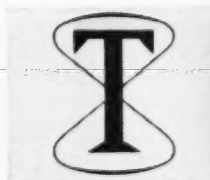
continued on page 69



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the evolution of a circuit breaker leg (see illustrations BELOW) explains why it had to take six stages to arrive at the final, satisfactory and economical solution. (The saving on the new standard leg will amount to many thousands of pounds per year.) By showing in detail the evolution of a very small component I tried to imply the correspondingly much more complicated processes involved in designing larger units, consisting perhaps of two dozen small parts of this kind. This display was not attempting, as Mr Archer submits, "to inspire enthusiasm for the special contribution that the general consultant is supposed to be able to make to industry".

Every critic is entitled to his personal assessments, but they are not valid if his sights are set wrongly. This one-man show — at an art institute — was not meant to sell or even explain general consultant design to industry, but was a retrospective exhibition of my work, for what it is worth. (It is true that other journalists in various papers used this exhibition as a starting point to discuss the general consultant designer and his activities in more general terms.)

Just as Mr Archer flippantly brushes aside Sir Herbert Read's foreword to my catalogue as "a bit of nonsense", so he flippantly adds confusion to a situation which, if anything, needs clarification, by wilfully not adjusting his sights to the specific func-

tion and context of the exhibition.

Because I respect Mr Archer as a design critic I regret that in this instance he has failed our young profession and himself.

F. H. K. HENRION

35 Pond St, London, SW3

Sir: L. Bruce Archer seems to have misunderstood F. H. K. Henrion's exhibition *Designing Things and Symbols*. This was a retrospective exhibition of Mr Henrion's contribution to design over many years, and not a reasoned argument about the role of the general consultant designer in industry.

Mr Archer is of course entitled to his own opinion about Mr Henrion's work, both as a general consultant designer and otherwise; in my view Mr Henrion does not need me to defend him in this, but it is a pity that Mr Archer has chosen to make this exhibition a target for an attack on the principle of general consultant design. A general consultant designer does not set out to be a man "who can turn his hand equally to all kinds of design". By the SIA definition, he must be a specialist in at least one major field of design; he must also have a wide enough experience and knowledge of other fields of design, outside his specialist province, to be more than merely aware of the problems involved.

The specialist product designer, therefore, may

well be capable of designing a package for his product, or producing an advertisement or poster, but it does not follow that he himself will do so. The important point is that in the complexity of organisations that make up modern industry, the design of products, their packaging, the trade marks, advertising, stationery, showrooms, delivery vans, etc, must all be co-ordinated if utter design chaos is to be avoided and a rational appearance presented. If this problem is to be solved really effectively someone is required who, beside being an expert at some things, has more than a nodding acquaintance with all of the problems involved. The general consultant designer is such a person, and his method of practising his profession has not been foisted upon industry by a few individuals; it has evolved because a real need exists, and this must be fulfilled. Jack of all trades — if you like — but *Master of more than one!*

JOHN REID

Chairman

General Consultant Designers' Group

Society of Industrial Artists

7 Woburn Square, WC1

Bruce Archer replies: "We seem to be at cross purposes. Perhaps I should make it clear that:

"1 My view of the role of the general consultant designer

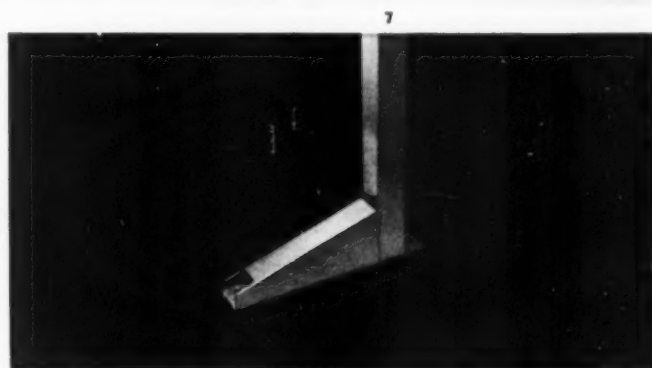
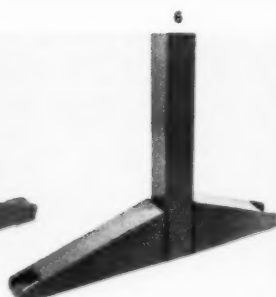
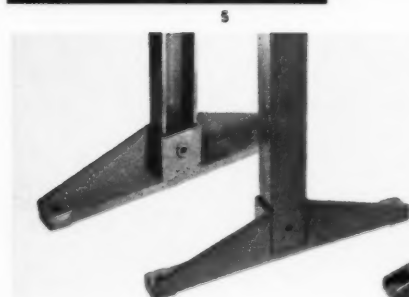
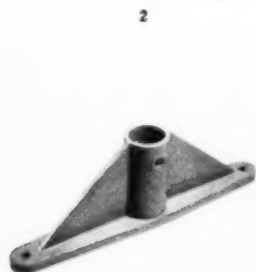
continued on page 71

Redesign programme

Various stages in the redesign of a circuit breaker leg for George Ellison Ltd are shown here (see F. H. K. Henrion's letter *The General Consultant Replies*). The original breaker feet, **1**, were first redesigned as a single casting, **2**, which, while giving the required stability, was not very

attractive. A second prototype, **3**, was produced in which the fixing was concealed by a single separate casting. This proved too complicated and expensive to produce, and a third prototype, **4**, was prepared. Meanwhile, however, research showed that a U section could replace the original tubular legs, and the foot design was adapted to hold the U channel,

5. It was then found that square tubing, giving more stability in a smaller diameter, had become available; this made it possible to have two simple castings which could be screwed on either side of the legs from underneath, **6**. Further experiments showed that one cast foot was sufficient, and that the back foot could be dispensed with, **7**.





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signer coincides exactly with that expressed in John Reid's letter.

"2 I criticised the exhibition, as I would criticise anything else, because it fails to uphold this view. (Roger Coleman states in his introductory note to the *Designing Things and Symbols* catalogue that the theme of the exhibition was – "the role of the general consultant designer – and the exhibits have been selected in the perspective of this theme".)

"3 These letters demonstrate that those who are too much on the inside cannot really see the impression given by the exhibition to outsiders".

Planned solution

SIR: I recently needed an extra plan chest, about double elephant size, to keep at home. It had to be reasonably presentable as it was to be placed in a dining room. Most makers offered the same dreary chest we are only too familiar with, the design (!) of which has not changed this last half-century; prices ranged from £30 to £38. Most of us who own this sort of chest know how difficult the drawers soon become, through warping, shrinkage, etc.

The cheaper of the two 'contemporary' designs for chests I was able to trace started at about £70, but gave less drawers and had other failings.

I decided that the only thing to do was to design to my own requirements and have the chest made privately. As a result I now own, for a modest outlay, a plan chest whose efficiency is a sheer delight. The secret of its ease of functioning and extremely modest cost is in the use of *shelves* instead of drawers. These shelves have a finger-grip in front and a narrow strip of wood at the back. They slide smoothly in a U channel section of wood each side. A row of these channel strips is fixed down the inside of both sides of the chest, thus each shelf's capacity can be as deep (vertically) or as shallow as required. (On most plan chests drawers are too deep and too few.)

The body and doors of this chest, which stands on adjustable legs, are made of blockboard, to avoid any warping later. Full length shelves are of thin blockboard, to reduce sagging to a minimum; half size shelves are plywood. (I find a greater use for smaller shelves than for large ones – one has no choice in existing makes.) With large shelves only, the cost of manufacture is even lower.

I had this plan chest constructed to my draw-

ings by the joinery department of a small firm of builder-decorators at a cost of £38. I feel sure that any firm manufacturing and marketing this type of plan chest would find it an excellent proposition as well as providing a boon to a great many designers and architects.

I practise as a graphic designer and claim no knowledge whatever of furniture design; no doubt the expert in this field could improve vastly on my design, the elements of which are based on logic and commonsense and were to some extent 'lifted' (with his blessing) from George Him. But of course there is nothing particularly original about the whole thing; it ought to have been available to the public years ago.

DAVID CAPLAN
27 Great Ormond Street
London, WC1

Legibility

SIR: Nobody minds very much when your art editor pats himself on the back for his choice of heading type, but many will agree with David Dewey (DESIGN 137/78) that the lettering on the cover is over-weight and crude. And your art editor is all at sea over the case of *Plantin* v *Baskerville*. Comparative readability is not a question of what the Medical Research Council thinks, but whether the majority of readers would find one face easier to read than the other, when both are printed on art paper. It is naive in the extreme to say that the only test is to ask a large number of people to take part in an experiment. Many people have in fact done this, over the years. And their findings have been the same as those of Noel Carrington and John Clare – that *Baskerville* is *not* so effective on art paper.

PATRICK MOXEY
83a Elizabeth Street
London, SW1

Sterling worth?

SIR: If the new £1 note (DESIGN 137/61) is a tangible expression of the worth of the £ sterling for some years to come, I despair. The notes look like what they are: one third of their predecessors in purchasing power, at their respective dates of issue.

Apart from the shocking lettering – neither Roman capitals nor decent italics – and the meaningless curlicues which adorn it, the drawing of the Queen must surely rank among the worst ever published of the sovereign. Even the excuse of security cannot disguise a bad likeness, and many Dominion notes have superior portraits.

Underlying the basic design are some off-centre shapes whose complete lack of relation to the enforced symmetry of the main composition set on its meretricious diamond-type background indicates absence of purpose; the effort to square-up the legend until the words "sum of" defeat the artist and have to be filled with a senseless flourish ... all this is depressingly bad design.

On the reverse, things are worse. A meaningless whirl of anti-photographic tints, symmetrical star-shapes and tiny panels overlying what appears to be a bad reproduction of a penny. Surely, we could have had something better after years of effort?

Granted, the 1928 design with its engravers' gothic and copper plate was in need of replacement. But is the present effort the right move?

EDGAR LEWY
54 Aberdare Gardens
London, NW6

BOOKS

The status seekers

Vance Packard, *Longmans*, £1 1s

We in this country pride ourselves on the public eradication of class barriers, see it vindicated in a Royal marriage, and, though hereditary titles or inherited wealth still wield power, we believe in democracy. Indeed we have often looked to the United States as an example of the model democracy at work. Vance Packard gives warning however, and says that, if the class system in Great Britain (among other countries) is more open than in the US, industrial progress and the affluence which is an outward sign of its success must eventually mean that we will follow America to that farcical stage where lavish outward display of wealth or breeding becomes a criterion of status; to the state of mind which judges status by the 500-dollar gold-plated tap in the bathroom. Whatever the American citizen does, what he says, what he wears, or eats, or drinks, marks him; the impression Mr Packard gives is one of "little circles and crowds picking and clawing at each other" to avoid getting snooted.

Mr Packard's book is absorbing and amusing and some of it is obvious. But there are lessons to be learnt, for example about the unscrupulous methods of the advertiser or the dangers of social ambition for its own sake; persuasion is easy once a pre-occupation with symbols has been instilled into the public mind.

It is a wonder after reading this book that there is any incentive left to work to *create* products, or houses, or virtually anything which is conceived as an artistic expression, which is at the same time socially responsible. Mr Packard suggests that the dextrous management of sales is more important than the production of goods of quality, irrespective of any design standard. While it is unlikely that people in Britain swallow all adverts whole, the constant barrage of pretentious rubbish directed at us must inevitably have an effect. For a long time it has been the ambition of most Englishmen to have their suburban castles and to turn them into replicas of the stately homes; hence the appeal of suburban houses and the creation of the one-class neighbourhood, evident even in the New Towns. In America, "snob appeal = today's home sweet home" and means "une maison ranch très originale, avec 8 rooms, 2½ baths ... 2-Cadillac garage ... \$21,990 ..." or a "love symbol". Again, shopping for status provides the unscrupulous producer or retailer with plenty of suckers who will pay outrageous sums for expensive personal adornment, or the latest gimmick in labour-saving devices, or who will go to the other extreme and buy something invented in an earlier

continued on page 73

David Caplan's plan chest (see Planned Solution)





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but less self-conscious age, to display the 'culture' of its owner.

Thus, the symbols, the racial stratification, 'culture kicks' and the rest have created a society which cherishes freedom and democracy for its people, who have, however, little idea beyond their own limited sphere of how the other half lives, and who are endlessly struggling upwards on a ladder which is supposed not to exist. Mr Packard is nevertheless a happy pessimist.

A.M.C.N.

Lettering on buildings

Nicolette Gray, Architectural Press Ltd, £1.5s

This is a book to be read and re-read – so full of facts and comments that it cannot be fully taken in at one reading. Almost incredibly, it is the first book to deal comprehensively with architectural lettering; and "comprehensively" implies that it ranges from ancient Roman inscriptions to neon signs in Perspex.

Its author is an historian, but this does not mean that she is obsessed with antiquity; on the contrary, her knowledge of the past enables her to make informed comparisons between old and new which are sometimes surprising and always stimulating.

While the facts and the opinions in *Lettering on Buildings* are readily distinguishable, they are nicely intermingled, so that the book makes both scholarly and lively reading. Among the opinions, two which recur so frequently that it is clear they are strongly held, are these: that lettering on buildings in recent years has been unduly close to typographical styles; and that architects in Britain and America have followed too often, and too blindly, the 'Trajan Column' exemplar – despite the fact that it is not "adaptable to vulgar intention" ("suitable in the street name plate . . . discouraging on the public-house sign"), and can become "very easily, pretentious". Mrs Gray argues, convincingly, that our ap-



Near-Trajan for Whitehall, ABOVE; and BELOW, Egyptian – in "a rare surviving example of street and lettering planned as one" (See *Lettering on Buildings*.)



preciation of the formal beauty of Trajan has blinded us to the richness of our own English tradition in lettering – which is sad, because past centuries have produced more robust letter forms, more apt for architectural use, than Trajan. These include chunkier Romans, the Modern and Fat-face varieties; Sanserifs; and, most notably, Egyptians. If we are to have better lettering in public places, we must have wider public interest in lettering, and this book is well suited to stimulate such interest; indeed, it has already done so by getting itself reviewed in the Sunday papers, for a non-specialist readership. The specialist, whether architect, industrial designer, or typographer, will not want to part with *Lettering on Buildings* once he has laid hands on it, thus justifying the author's hope that her book "may help to bring lettering back into the full life of the Modern Movement . . ."

The illustrations are fascinating; they come from three continents, though the majority of them are English. They should prompt the making and publishing of similar collections by others; there is still a wealth of unrecorded material in our towns, despite the inclusion of 269 pictures in this book. One must hope that the copies are bound as durably as possible, for cross-reference is frequently necessary between the text pages and those 269 pictures, which make up a separate art-paper section at the back of the book.

It is hard to fault *Lettering on Buildings*, but there are a few small errors that should be corrected in later editions; and the dust jacket is certainly not the best thing Gordon Cullen ever did. ALEC DAVIS

The English tradition in design

John Gloag, Adam & Charles Black, £1.5s

Originally published in 1947 as a *King Penguin*, this book was a handy guide for the layman to the development of architecture and its ancillary crafts from mediaeval times until the present. It is now issued in a considerably enlarged form with an ex-

cellent selection of photographs.

The reader is constantly reminded of the relative importance of the patron and the executant. There can be no doubt that when an enlightened patron knows just what he wants to do, can afford to do it, and can rely on sufficient highly skilled craftsmen who understand and sympathise with his wants, a blossoming takes place. John Gloag's interest in the eighteenth century inclines him perhaps to under-rate the achievement of mediaeval times. There have been few periods in any age or country where a wealthy patron gave such enthusiastic, knowledgeable and enlightened leadership to art and craftsmanship as did the Church in Western Europe from the thirteenth to the fifteenth centuries. Even today, when so much has been destroyed, its quantity astounds us, and when we come to examine its quality, variety and virility it is difficult to imagine we shall ever see the like again. Lack of knowledge of Classic proportions and details is apparent in most of the great houses of the Elizabethan new rich, but the builders excelled themselves in the smaller manors and farmhouses which were erected by thousands in a very English simplified version of the Gothic tradition and furnished with sound, unpretentious oak.

Luxury, which has been financed so often by tyranny, caused in the seventeenth century an obsession against all forms of pleasure and beauty, so deeply imbedded that traces of it still survive. But English commonsense prevailed, and Mr Gloag traces the development of specialisation which led to a perfection of making in the eighteenth century, stimulated by a critical aristocracy who were keenly interested in architecture and garden design. They were followed again in Victorian times by a new-rich middle class, who over-reached the Elizabethans in ostentatious display. Today, money is largely in the hands of the working class.

Painful efforts to try to improve on the lowest commercial standards of design and craftsmanship which followed the Industrial Revolution are being made, but will the new patrons learn to encourage fine things for their own sake? Unfortunately, the historical pattern gives little guidance in the entirely novel circumstances of today.

GORDON RUSSELL

The common market

J. F. Deniau, Barrie & Rockliff, 15s

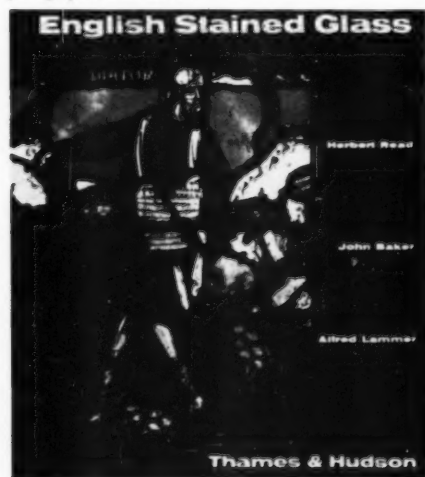
Here is an intelligent author – exceptionally ably translated – whose ostensible purpose is to discuss the structure and purpose of the Common Market. Had he commented only on the policies and institutions which make this politico-economic entity work, nothing much would have been added to the plethora of printed matter on this well-worn topic.

But Mr Deniau spares us from this disappointment and proceeds to give a goodly dose of economic history and many shrewd comments on the economics of large markets. Here and there he clouds the argument by touching on too many disparate concepts in a single, short chapter – when, for instance, he refers to staff training, a truly sub-lunary matter, in the context of the advantages of large markets.

continued on page 75

Staff work

The photographs, most of them in colour, for this new book on English Stained Glass (£5.5s from Thames & Hudson) were taken by Alfred Lammer, who is staff photographer to the CoID.



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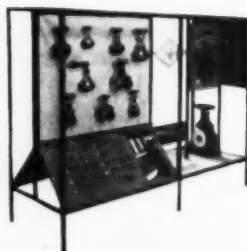
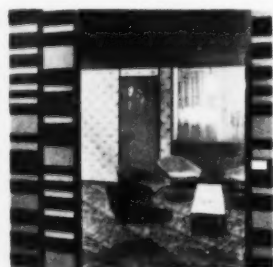
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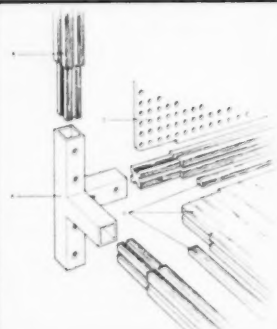
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For a work dedicated to a discussion of principles, such references read a little 'off beat'.

As a true protagonist, the author attributes the flattening out of peaks and troughs of the business cycle in the USA in recent years to the existence of a large single market. There may be much truth in his partisanship, but other factors such as the rise of the 'service economy', a decade of full demand and overfull employment, and much improved governmental controls, must have played a significantly larger part.

Nonetheless, we must understand that here is a 'good European' arguing a good case who is sincere in his convictions. I hasten to add that Mr Deniau is right – important causes need passionate advocates. And it has been due to the efforts of such and similar men that despite the difficulties, a new kind of customs union has been established – one where "attention has been devoted not only to the barriers between the European states but also to the effective balance of strength between the participants". The realisation of the Common Market, Mr Deniau rightly argues, has involved "a painstaking search for a solution to the problems of each nation".

NICHOLAS A. H. STACEY

Neue Möbel 5

Editor Gerd Hatje, Alec Tiranti Ltd, £2 18s 6d

Furniture once created by the designer-craftsman working in traditional materials has now become assimilated within our technological age, and design is becoming a highly specialised profession, with an ever increasing study of new man-made materials and production processes. Underlying the Modern Movement in furniture design is a fundamental simplicity, an awareness of ultimate function, a directness in construction prescribed by machine manufacture, and perhaps what is most important in our highly competitive industrialised society, an appreciation of economics. This rationalism in design is no mere style or passing fashion; it is irrefutably part of our dynamic scientific age.

Neue Möbel 5 sets the stage of this exciting drama, with almost 400 photographs representing some of the best international designs produced in the last decade. It has been said that the magazines of today make the books of tomorrow, so that much that is illustrated will have been seen before. This book, however, is a valuable source of reference, dealing with most types of domestic and office furniture.

Despite the apparent internationalism of the new aesthetic, national characteristics are still discern-

Danish dining table and chair designed by Paul Kjaerholm, and illustrated in *Neue Möbel 5*.



ible. Where hand manufacture is still an economic proposition, in Italy, for example, an extravagance in detailing is obvious. In more complex industrialised societies, ie America, Germany, Switzerland, France and Britain, excessive labour costs make directness and economy in design essential. Denmark still possesses that happy mean of machine made and hand finished production.

Worth noting are the contributions by Werner Blaser and Uli Weiser, illustrating the intellectual approach of the Swiss, while the softer lines of the 'teak clique' are well represented by Finn Juhl and Arne Jacobsen from Denmark. From America the high degree of sophistication and mechanical invention is illustrated in the work of Charles Eames and George Nelson. Britain is represented solely by the work of Robin Day and Robert Gutmann. Many of the finest designs that have appeared recently on the Continent are not included; no doubt the time lag between the conception of the book and the final publication date necessitated certain omissions.

NIGEL V. WALTERS

Accent

The Journal of Leeds College of Art, Number 1, 3s

Published by the students of Leeds College of Art, this new magazine states no policy other than being a forum of visual ideas.

It presents a feature on university architecture by Sir Hugh Casson, an essay on *Alan Davie and Action Painting* by David Lewis, an outline of German architectural education, a critical essay on present day Italian architecture and an account of the experience of designing railway carriages by Ellis Miles.

The looks of the magazine are unassuming, direct and positively 'ungimmicky', in the rational tradition of two outstanding architectural students' publications of research and enquiry: the pre-war *Focus* and the 1948 – 1950 *Plan*.

Sir Hugh Casson's theory on *Landscape Architecture and the Campus* deserves to be expanded further for the benefit of architectural students. David Lewis' essay on Alan Davie, written with intensity and sympathy provides the kind of insight on methods and attitudes of action painting too often clouded in almost mystical jargon. The German contribution on architectural education is a comparative frame of reference valuable to teachers and students, and the excellent account of the joys and frustrations encountered in designing railway carriages is the kind of clear progress report to be read at the beginning of one's practice as a designer. The essay on mid-century Italian architecture touches on that peculiar Italian weakness: form for form's sake and the absence of a serious social architecture, meaning perhaps that every society gets the architecture it deserves.

GERMANO FACETTI

The Layton annual awards 1960

C. & E. Layton Ltd, £2 2s

"This is the sixth year of the *Layton Annual Awards*. The aim of the sponsors remains as it always has been: to promote and encourage the improvement of Press advertising techniques."

This quotation prefaces the latest annual and a very worthy aim it is, but the results, alas, still fall

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Advertisement for IBM United Kingdom Ltd, designed by Jasper Blackall; the drawing is by Amstutz. (See the Layton Annual Awards 1960.)

short of a reasonably high standard. Looking through this volume one is surprised to see the old familiar formulae still very much in use: the squared up half-tone topped and tailed by headline and copy, and in many cases the visual image of the advertisement not related at all to the idea or selling point. Time and time again the impact is lost and interest flags or the work is flagrantly vulgar. This could be overcome if the problems were more thoroughly analysed and new dynamic techniques were brought in to integrate the visual and copy theme. Some of the techniques seen in this book look quite well on art paper, but are almost destroyed when reproduced on newsprint. The general lack of originality in most of these designs, their tiredness, dullness and familiarity stress the gap between present day Press advertisements and other forms of graphic design. Even the challenge of this annual competition has failed really to stimulate the young designer or stir the established ones from their comfortable places. There is still plenty of room at the top.

One or two of the designs, however, though not included among the winners, are conspicuously good. *IBM Data Processing*, ABOVE, is excellent. Jasper Blackall has achieved the right visual impact and has related the design to the copy most successfully. It would appear equally well on newsprint. *Sunday Graphic* (Group F, page 90) has real distinction. It is simple, bold and eye-catching – a perfect tie-up between picture and copy. *Grant's Standfast Whisky* (Group A, page 25) also succeeds technically and has strong visual impact. This whole campaign is forceful and witty, although designed for small spaces. Compare its overall effect with one reproduced on the same page for Australian wines! The one elates, the other depresses. Lastly I would men-

continued on page 77

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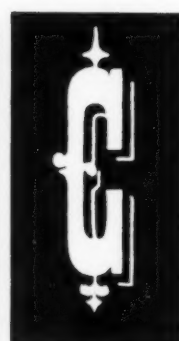
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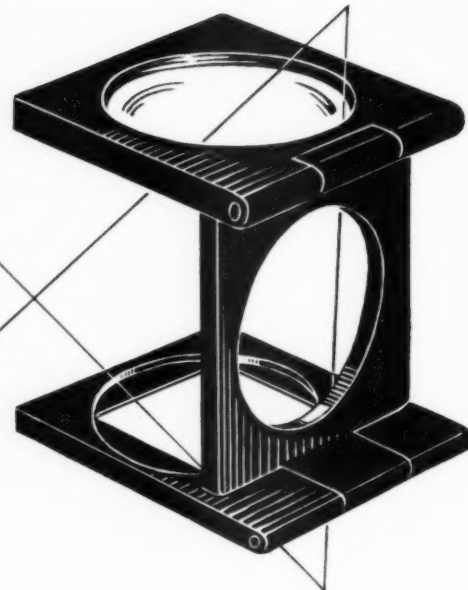
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Telephone No. Fleet Street 1379

tion Tom Wolsey's *Walk the Barratt Way*, BELOW, which is fresh, topical and wonderfully all-of-a-piece.

It is a pity that the illustrations and the book itself are not larger. It would have been interesting to



Advertisement for W. Barratt & Co Ltd, designed by Tom Wolsey, and reproduced in The Layton Annual Awards 1960

have had newsprint sections with fold-out pages so that some of the advertisements could have been reproduced full size. As it is, the copy is very difficult to read. The best work in this book, however, encourages one to believe that advertising by the Press itself will rise above the mediocre before too long, for it still leads in the field.

ERIC AYERS

Safety in print - wire stitching machines

The British Federation of Master Printers

The British Federation of Master Printers is to be congratulated on its production of a range of *Safety and Health* publications in the form of leaflets and booklets, and it is to be hoped that other industrial federations will do likewise. Accident prevention is a difficult problem in which there are no easy solutions, and no simple decisions or improvements to produce dramatic results; continuous publicity and repeated restatements of principles and methods are the only ways, like water dripping on a stone, to wear away and reduce accident percentages.

As such, this booklet, *Safety in Print-Wire Stitching*

Machines, will help, particularly with its straightforward restatement of "safe working methods". It is, however, rather expensively produced upon good art paper, and one wonders whether it is really worth while to use six pages showing almost identical guards for the German Brehmer machines which have already been mentioned and illustrated on the preceding six pages for the British Brehmer Ltd's machines; a most peculiar anomaly in price is also evident - an apparently identical pair of guards is said to cost £4 10s for the British machines and £10 10s for the German models. In its introduction the report states that "until quite recently the guarding attached to the head of wire stitching machines has been totally inadequate at the front and practically non-existent at the back and sides"; one wonders whether the above mentioned six pages might have been more fruitfully used in showing pictures of various machines for which guards are not yet provided by the manufacturers (presuming, that is, that there are still some machines in this category).

In its introduction the report also mentions two main causes of accidents, the second of which is "the unintentional operating of the treadle while removing a faulty or jammed stitch or carrying out other tasks"; but apart from pointing out the need to switch off the power before getting at the machine and indicating that long nose pliers or a suitable plastics stick are the best tools for removing jammed stitches, the report gives no other attention to this second major cause. The reader infers, perhaps rightly, perhaps wrongly, that the design of some machines must leave the operating treadle in a protruding position where it may be operated all too easily by mistake. Perhaps the booklet could have devoted more attention to this design problem.

However, such criticisms should not detract from the excellent presentation of material and the influence which such booklets can have in persuading the users of such machines to provide the expenditure required to purchase the necessary guards and other safety devices.

B. SHACKEL

Advanced structural design

Cyril S. Benson, B. T. Batsford Ltd, £2 10s

This book is intended as a practical manual of design for a wide range of users, from practising structural and civil engineers to builders, architects and students. The emphasis throughout is on producing sound conservative designs using a largely empirical and non-mathematical approach, and consequently the book cannot be considered suitable for use by the, unfortunately, very few engineers who have had the benefit of a rigorous university training.

The book is well laid out and the argument is in all cases easy to follow. The diagrams and drawings are for the most part adequate and of generous size, but one or two of them, particularly in the chapter on steel bunkers, are not easy to follow. A slightly more aggressive type for the lettering would have helped a great deal.

This book, however, is badly needed. It is for the practising engineer and student, and not for the highly theoretical advanced worker, and although no breathtaking conceptions such as those of Pier

Luigi Nervi and Felix Candela are likely to be produced by its readers, neither should any block of flats designed by them collapse like a pack of cards when the first train thunders past.

JOHN CORBETT

This month's cover

This month's cover was designed by Richard Negus and Philip Sharland; they both trained at the Camberwell School of Arts and Crafts, and subsequently worked with the headquarters' staff of the *Festival of Britain* organisation. They went into partnership as free lance graphic designers in 1951, and have done work for leading advertising agencies, and national corporations, including BOAC (DESIGN 123/25-6).

Addendum

DESIGN 137/58: the German washing machine by Gebr Sharpf Komm-Ges was designed by Erich Slany.

DESIGNERS in this issue

Dennis Bailey ARCA; Alan Ball; Colin Beales; Gerald R. Beech; Guy Bellamy; J. Beresford-Evans, FSA; Professor Misha Black, OBE, RDI, FPIA, MIMBA; Jaspal Blackall; John Brownword; David Caplan, FSA; Richard Chick, MSA; David Collins; George Daulby MSA; Tom Eckersley, OBE, FSA; Alan Fletcher, ARCA; Colin Forbes; Abram Games, OBE, RDI, FSA; Leslie Goodlay, ARIBA, FSA; Lucy Halford; Elizabeth Handley; Raymond Hawkey, ARCA, MSA; Alec Heath, FSA; F. H. K. Henrion, MBE, RDI, FSA; Robert Heritage, DESRCA, MSA; George Hinn, FSA; Derek Hodgkinson, MSA; Jack Howe, FPIA, FSA; Sydney King; A. B. Kirkbride; Eric Lyons, FPIA, MSA; W. M. de Majo, MBE, FSA; Leslie McCombie, MSA; Derek Mills; George Mitchell, DESRCA; Stanley Morison, RDI; Alastair Morton, RDI, FSA; Reginald Mount, MSA; Richard Negus, MSA; Eduardo Paolozzi; B. Pettis; Ernest Race, RDI, FSA; Michael Richmond; Ian A. Robb; Marjory Rowlands, MSA; Philip Sharland, MSA; Sir Basil Spence, OBE, RA, FPIA, FSA, RDI, FSA; R. Steadnett-Wilson, MSA; John Tandy; Dewi-Prys Thomas; John Voelcker; Nigel Walters, FSA; Neville Ward, ARIBA, FSA; J. K. White, MSA; Tom Wolsey, MSA; Roger Worboys, ARIBA; Arthur Wright.

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E. K. Cole Ltd (Ekeo Radios), 5 Vingo St, W1
Croggin & Co Ltd, Colnbrook, Bucks
Peter Cuddon, 54 Princess Victoria St, Bristol 8
Delaney Gallay Ltd, Vulcan Works, Edgware Rd, Cricklewood, NW2
Elkington & Co Ltd, 52 Grosvenor Gardens, SW1
The General Electric Co Ltd, Magnet House, Kingway, WC2
Hoover Ltd, Perivale, Greenford, Middlesex
Irving Air Chute of Great Britain Ltd, Icknield Way, Letchworth, Herts
The Metal Box Co Ltd, 37 Baker St, W1
Metropolitan-Cammell Carriage & Wagon Co Ltd, Vickers House, Broadway, SW1
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London County Council
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classified advertisements continued on page 80

CLASSIFIED

advertisements continued from page 79

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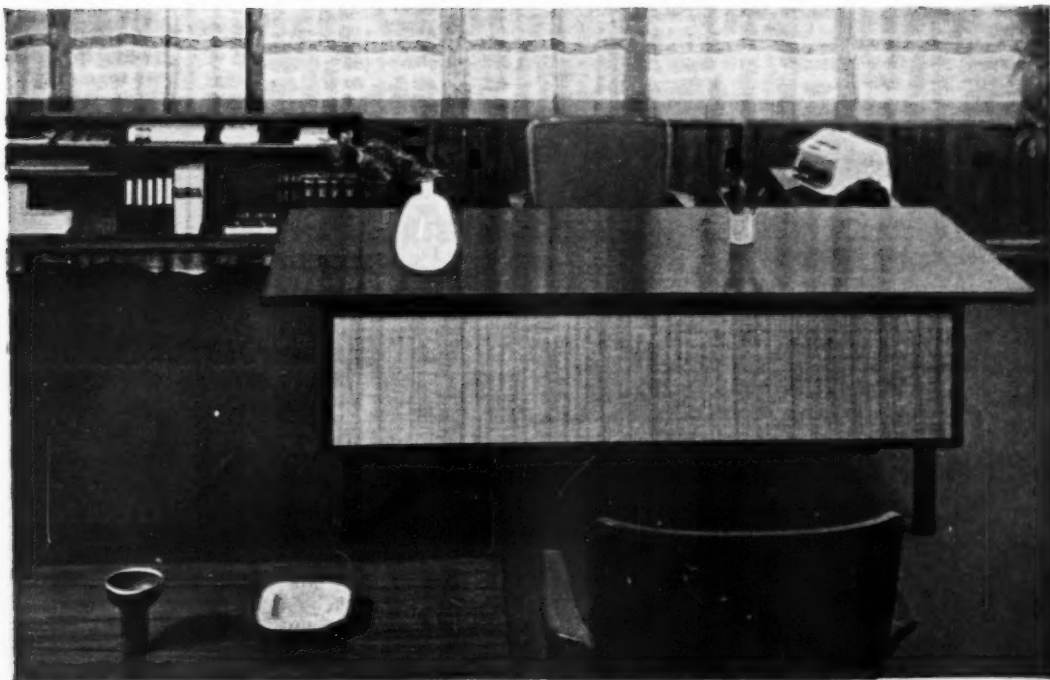
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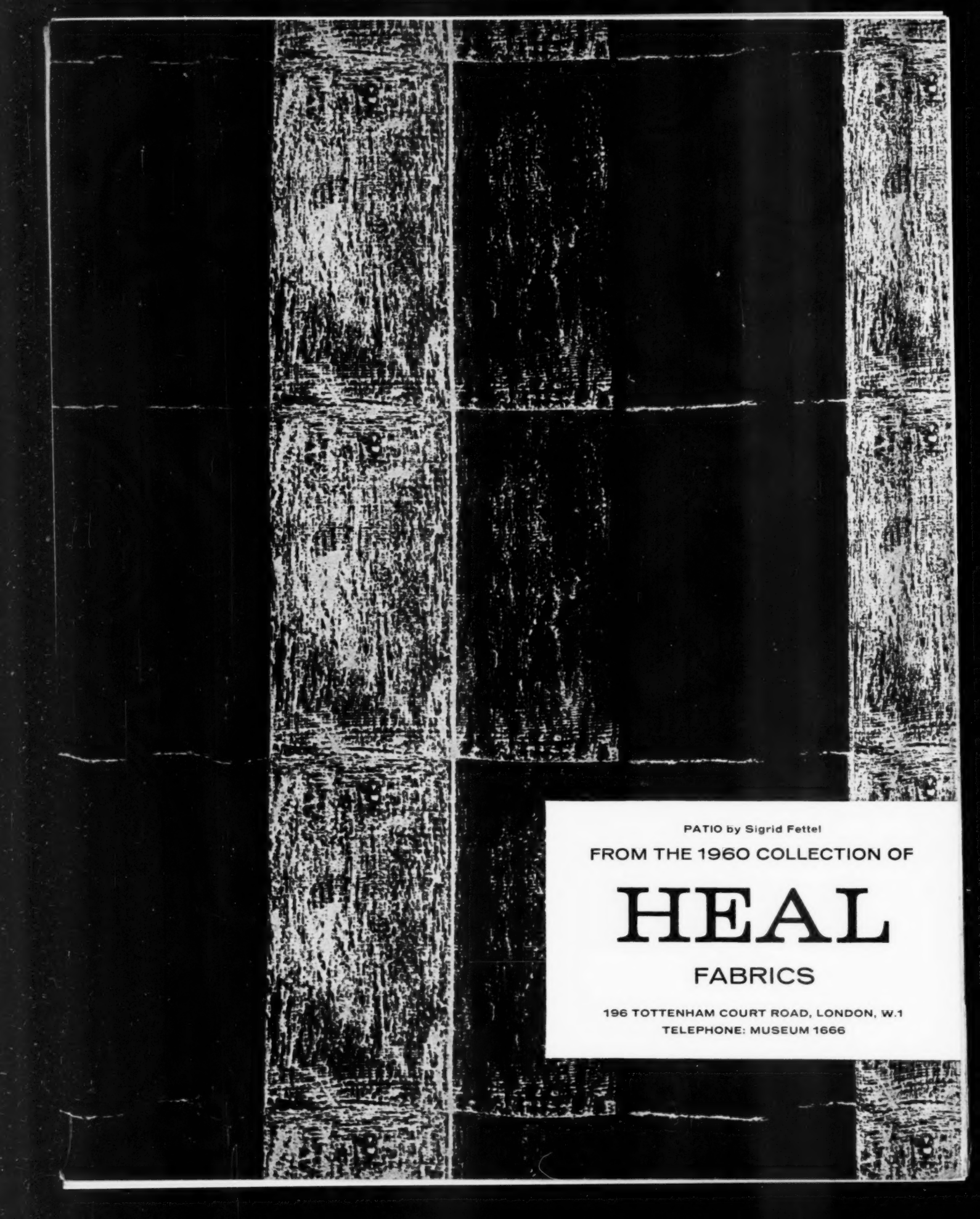
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